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ABSTRACT

This document presents an inventory of current physical facilities, plus a review of trends over the past 10 years, at universities in Ontario (Canada) as of the 1995-96 academic year. In Section 1 the space formula and inventory classification system are defined. Section 2 provides an overview of space inventories and usage for the period 1983-84 to 1995-96. In Section 3, data by institution includes inventories of university space, distribution by space category and institution, and age profiles. Tables are included for the following institutions: Brock University, Carleton University, University of Guelph, Lakehead University, Laurentian University, Algoma University College, Universitaire de Hearst; McMaster University, Nipissing University, Ontario College of Art, Ontario Institute for Studies in Education, University of Ottawa, Queen's University, Ryerson Polytechnic University, University of Toronto (St. George campus, Erindale campus, Scarborough campus), Trent University, University of Waterloo, University of Western Ontario, Wilfrid Laurier University, University of Windsor, and York University (main campus, Glendon campus). Tables in Section 4 summarize data on space utilization by type: classrooms, labs, academic departments, graduate student offices, administrative offices, libraries, physical education, maintenance, and student and central services. Six appendices define space categories, list and define input measures, present a program classification scheme, note Council of Ontario Universities (COU) space standards, and list COU space standards and planning publications. (CH)

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INVENTORY OF PHYSICAL FACILITIES OF ONTARIO UNIVERSITIES

1995-96



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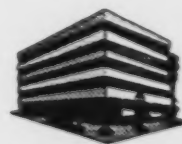
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**INVENTORY OF PHYSICAL FACILITIES OF
ONTARIO UNIVERSITIES
1995-96**

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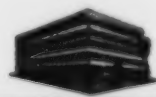
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SECTION 1

INTRODUCTION



INTRODUCTION

This report presents results of the latest in a series of triennial surveys conducted by the Council of Ontario Universities in order to monitor existing university space inventory and changes in space requirements, as determined by the *COU Building Blocks* space formula.

The Development and Use of Building Blocks

The COU space formula and inventory classification system were developed in the 1970s, and have been revised over the years, most recently prior to publication of the 1986-87 survey data in Volume VII of the *Building Blocks* series.

The COU Survey of Physical Facilities takes place during the winter of each third academic year. Data as of November 1 are requested, to coincide with the date for reporting of student enrolment to the Ontario government for operating grants purposes.

In the survey, each institution is asked to report current inventory in 20 space categories, and related input measures, such as student enrolment, faculty and staff full-time equivalent positions, laboratory contact hours, and equivalent volumes in the library collection. These input measures are used in the calculation of space requirements for the first 15 of the categories, for which quantitative space factors have been determined. The resulting calculations of space entitlement are used, with the data on existing inventory, in various ways. For example, COU uses the survey data to monitor changing space needs and as part of the case made to government about capital funding requirements for the university system as a whole. Individual institutions may compare their existing inventory with space entitlement under the COU formula in proposals for capital funding for new buildings, and the COU formula (sometimes with modifications) is used in institutional planning, such as estimating the needs of a division for different types of space.

Outside agencies and institutions, including universities and government ministries in British Columbia and Saskatchewan, are also users of *Building Blocks*. Consultants planning university facilities in Canada and in other countries frequently request COU space publications. The Canadian University Reciprocal Insurance Exchange (CURIE) uses the COU space categories as a basis for determining the value of university facilities for insurance purposes. And, since 1986-87, the Ontario Ministry of Education and Training (MET) has allocated funds for repair and renovation according to each institution's entitlement for space in the 15 formula categories.

The COU Committee on Space Standards and Reporting

Coordination of the triennial survey, periodic reviews of the space standards, and special studies on the availability and utilization of university space are the responsibility of the Committee (established in 1988). The Committee has undertaken a number of projects, including a study of classroom utilization in Ontario universities (a joint project with MET) and an examination of the Building Blocks formula in relation to university space standards in other North American jurisdictions.

Currently, the Committee is conducting an electronic classroom survey, with the assistance of the Media Directors of Ontario, to obtain information on the extent of "electronification" in our classrooms. In addition to special studies, the Committee uses the detailed data collected in the survey to monitor changes in space needs, such as the impact of computing on the laboratory, library and office categories. A list of publications from the Committee and its predecessors is included in Appendix F of this report.

In 1992, the Committee prepared the *COU Building Blocks Users' Guide*, in response to requests for a document which would be more concise, up-to-date and "user friendly" than the volumes in the *Building Blocks* series which describe in detail the space classification scheme, the assumptions in the space factors and the analysis used in developing, testing and revising the complete COU space formula.¹ The *Users' Guide* contains instructions for the preparation of institutional responses to the triennial survey, and also explains how the COU space formula can be used to analyze space requirements for purposes other than the survey. The *Users' Guide* is revised every survey cycle.

Accountability and Utilization Issues

Explaining how university space is being used is an on-going responsibility of the Committee. With increasing emphasis on accountability, universities are expected to ensure that their use of resources, including physical facilities, is efficient and that appropriate information on utilization is made available to Government and the wider public. The space factors used in *Building Blocks* contain implicit utilization measures for classrooms and laboratories.

For example, in the late 1980's, COU and the Ministry of Education and Training conducted a joint study of classroom utilization, to determine whether the utilization assumptions were still appropriate.² Data from a sample of Ontario universities showed that the universities were meeting or exceeding the hours of use per week and percentage of seats occupied in the classroom space factor, and that average area for the different furniture types currently in use was also consistent with the assumption in the formula. The survey also showed that extended use during the evening is occurring at many institutions.

The publication of a major California study on university space standards also provided an opportunity to examine the COU standards in relation to systems in use in other North American

¹*Building Blocks: Background Studies on the Development of a Capital Formula for Ontario. Volume I: Report of the Task Force - Space and Utilization* (Council of Ontario Universities, 1972), COU publication # 72-9; *Building Blocks: Volume VI: Report of the Subcommittee-Revisions to Building Blocks* (Council of Ontario Universities, 1978), COU publication # 78-12; and *Building Blocks: Volume VII: The Final Report of the Task Force to Review COU Space Standards* (Council of Ontario Universities, 1988), COU publication #88-1.

²*Classroom Space Utilization in Ontario Universities, 1988-89* (Council of Ontario Universities, 1990).

jurisdictions. A short summary of the California study was prepared³, which demonstrates that the COU standards are consistent with standards used elsewhere in Canada and the U.S., and that in most space categories, the COU standards are more rigorous.

More than twenty-five years after they first appeared, the original *Building Blocks* publications are still requested by universities, government departments and planners. The COU space formula retains its usefulness and credibility, in large part because it undergoes regular review and updating, a process that does not always occur in other jurisdictions.

Changes and Improvements in Reporting

Since 1991 COU has included federated and affiliated colleges in the triennial survey, in response to MET's funding requirements. Data on space and activities at all of these institutions are now fully integrated into the reports of their constituent universities.

In conducting the 1995-96 survey, special efforts were made to ensure that the data were consistent with other sources of information, such as student enrolment data reported to the Ministry of Education and Training, and that significant variances from the previous report were justified. Work will continue to improve the completeness and consistency of reporting for the triennial surveys. The Committee will continue to review the formula as changes in university program delivery and administrative requirements indicate.

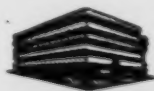
The library volume equivalencies used in the generation of stack space entitlement was reviewed in order to bring them up-to-date with changes in library materials, such as the use of CD-ROMs and on-line databases. A number of different methodologies/systems were examined, including the public library system, and ARL (Association of Research Libraries). With the invaluable assistance of Virginia Gillham (member of OCUL (Ontario Council of University Libraries) and Chief Librarian at Wilfrid Laurier University), the Committee adopted the methodology used by CARL (Canadian Association of Research Libraries). The CARL system is an established method of collecting this information, university librarians were already reporting this data to CARL, and the categories were similar to that used in previous editions of COU's triennial survey. An analysis of the CARL data (converted to equivalencies) compared to data reported to COU for the triennial report yielded a high correlation between the two methodologies.

³MGT Consultants, *Survey of Space and Utilization Guidelines and Standards in the Fifty States*, Report submitted to Mr. William L. Storey, Project Director, California Postsecondary Education Commission (Sacramento, March 31, 1989). Its findings are summarized in *University Space Standards in North America* (Council of Ontario Universities, 1990).

SECTION 2

AN OVERVIEW:

1983-84 to 1995-96



HIGHLIGHTS

From 1983-84 to 1992-93, the Ontario universities have experienced continuing growth in student enrolment without a matching growth in building space. This led to a decline in the percentage of actual inventory compared to space requirements as generated by the formula, at nearly all institutions. Because FTE enrolments are the most significant input measure in the space formula, institutions with the greatest enrolment growth tended to have the most marked deficiencies.

Since 1992-93, the Ontario universities, in spite of a decline in student enrolment remain underspaced particularly in teaching, research, library and central facilities as shown in Figure 1. Compared to 1983-84, the system is underspaced by an additional 3% and all buildings have aged on average, from 19 years to 28 years, as shown in Figure 6.

Notes:

For comparison purposes (in this 1983-84 to 1995-96 overview), a consistent set of institutions is used. Therefore, Algoma, Hearst, Nipissing, OCA and OISE were excluded from the following figures. However, starting with the 1992-93 survey year, affiliated and federated colleges are included with their parent institution, which may make for some minor inconsistencies.

With the exception of Figures 1,2 and 6 (which include all institutions), a consistent set of institutions is used in the analysis.

Figure 1 - Actual Inventory / Generated Space by Functional Area, 1995-96

This figure compares space generated to the actual space inventory in the major categories.

In the major academic areas (classrooms, class labs, and research) the shortfall is about 15%.

Much less space than required by the formula is available for student support functions (library, physical education, and student & central services).

Therefore, limited resources are being used to support the core teaching and research functions of the universities

Figure 2 - Functional Breakdown of Formula Space Usage, 1995-96

This figure shows a breakdown of inventory in the formula categories 1 through 15. The diversity of university activity is reflected in the relative portions of the space categories.

Academic Office & Support (includes offices for faculty, graduate students, administrative staff,

and associated support areas (eg. *departmental meeting rooms, resource centres*)) is the largest category. These offices can be regarded as extensions of the instructional and research space in the classrooms and labs, since small group instruction and research activity takes place in faculty offices. Therefore, the student's educational experience is not limited to the classroom.

Figure 3 - Formula Space Usage

This figure reflects actual space inventory in the formula categories 1 through 15. The formula categories provide for the full range of functions and services needed in a contemporary university. These categories were then aggregated in six functional groups; as defined on Figure 1.

Changes in the relative proportions between 1983-84 and 1995-96 are due to: (1) the inclusion of the federated / affiliated institutions, (2) the building of new facilities, and (3) the reallocation of space.

Teaching Facilities (eg. classrooms, undergraduate labs) declined from 30% to 26%.

Lab-Research Facilities increased slightly from 12% to 14%. The percentage of space devoted to this facility has remained relatively constant since 1986-87.

Academic Office space increased steadily until 1992-93.

Library space remained relatively constant.

Student Services space (eg. athletics, food service, bookstore space) declined slightly from 18% to 16% in 1992-93. In 1995-96, the percentage increased slightly to 17%.

Figure 3A - Generated and Actual Inventory by Selected Functional Areas

This figure compares the generated and actual inventory of selected functional areas over time.

The graphs show (with the exception of Academic & Administrative Office & Support in 1995-96) that generated inventory is greater than the actual inventory, which implies that the universities are short of space overall. The widest discrepancy is seen in the Library space area.

Figure 4 - Non-Formula Space Usage

This figure shows the major uses of non-formula space (categories 16-20). The non-formula categories include space which cannot be assigned to distinct academic or administrative functions, as well as student residences and a small number of specialized support areas.

Generally, non-formula space has remained relatively constant from 1983-84 to 1995-96.

Figure 5 - Total Space Usage

This figure shows the total space inventory in formula, non-assignable and non-formula categories (categories 1-20).

The increase of approximately 1,200,000 NASM (net assignable square metres) between 1983-84 and 1995-96 (32%) represents (1) real growth, and (2) the inclusion of federated / affiliated institutions in the 1992-93 survey, and (3) the inclusion of health science space not previously reported.

Non-Formula space increased from 17% to 19% due to the inclusion of (1) residence facilities in the federated / affiliated institutions in the 1992-93 survey, and (2) construction of residence facilities in the constituent institutions.

Non-Assignable space increased slightly due to the fact that newer buildings tend to have relatively more non-assignable space than older buildings. More space is devoted to mechanical and electrical systems, and also to satisfying building code requirements relating to physical access and occupational health and safety.

Figure 6 - Total Actual Inventory / Generated Inventory Average Age of Buildings

The Total Actual Inventory / Generated Inventory graph shows that this percentage has been decreasing over time, except for a slight upturn (due to the decrease in student enrolment) in 1995-96. The percentage figures are all below 100%, which implies that the universities do not have adequate space, according to the COU space standards.

The average age of buildings in the Ontario university system has increased, on average from 19 years in 1983-84 to 28 years in 1995-96. The building age between the 1992-93 and 1995-96 survey increased by about 1.5 years, due to the construction of new buildings, and renovations made to existing buildings.

Figure 1
Actual Inventory (NASM) / Generated Space by
Functional Areas (with NASM for each functional area), 1995-96

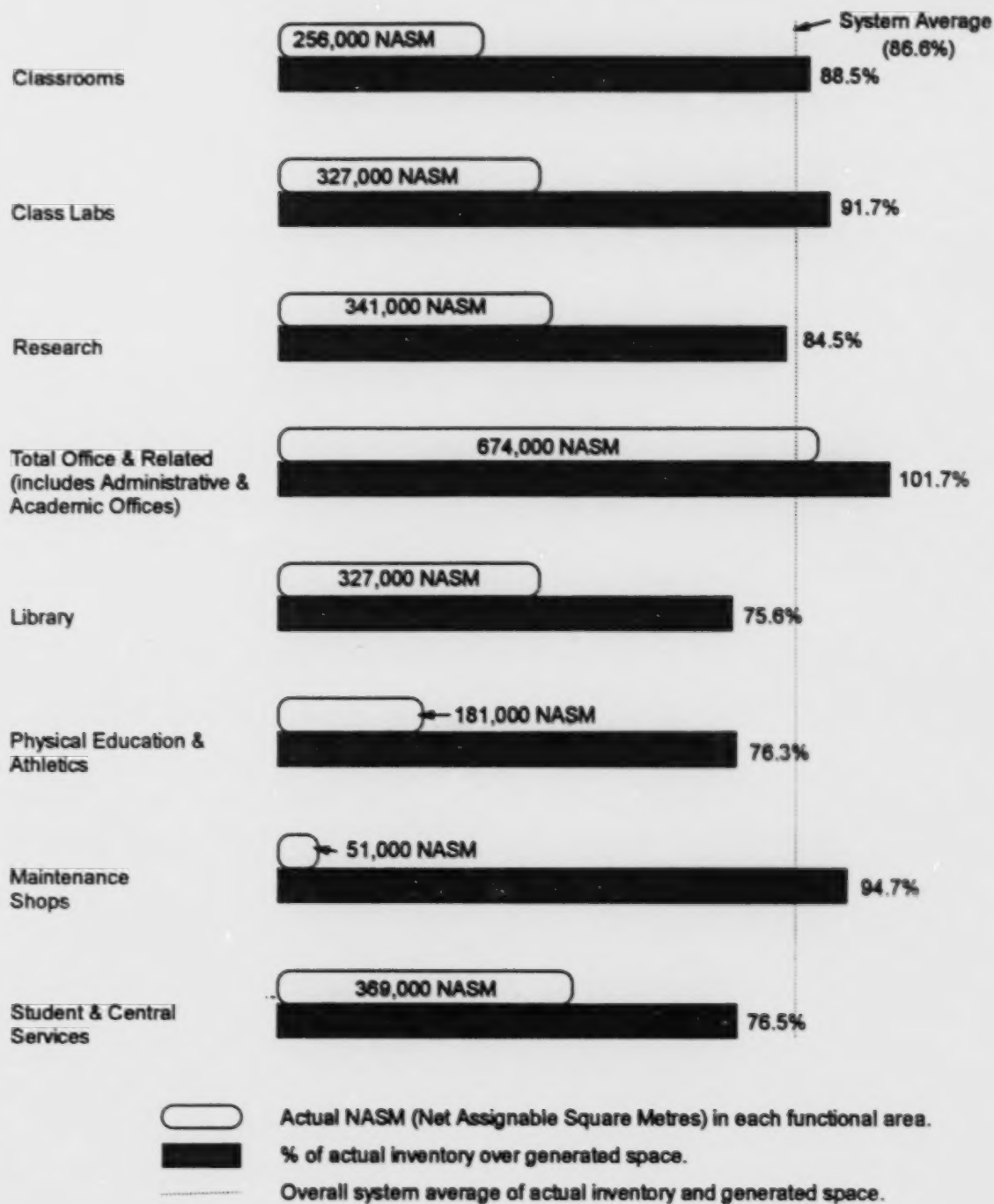
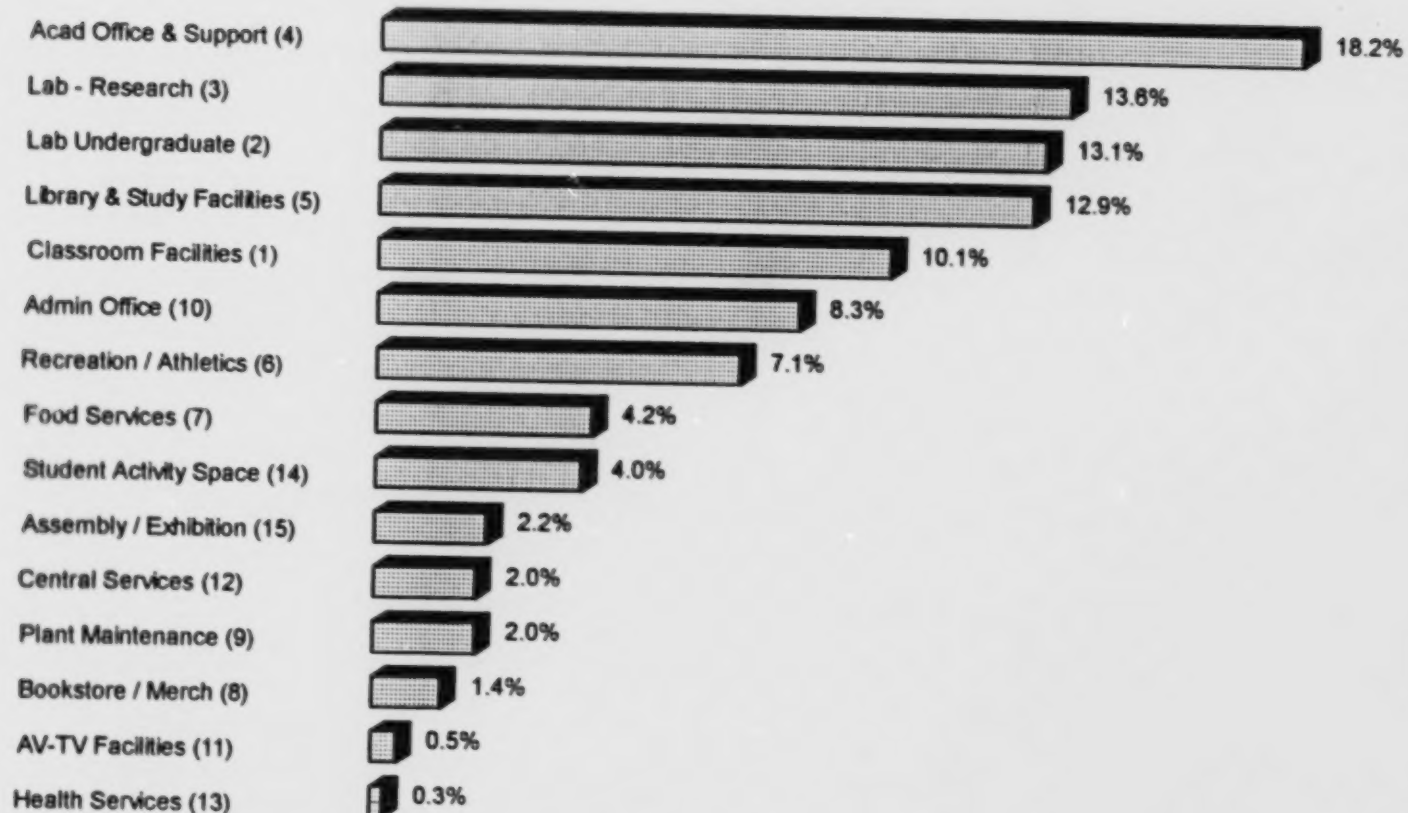


Figure 2

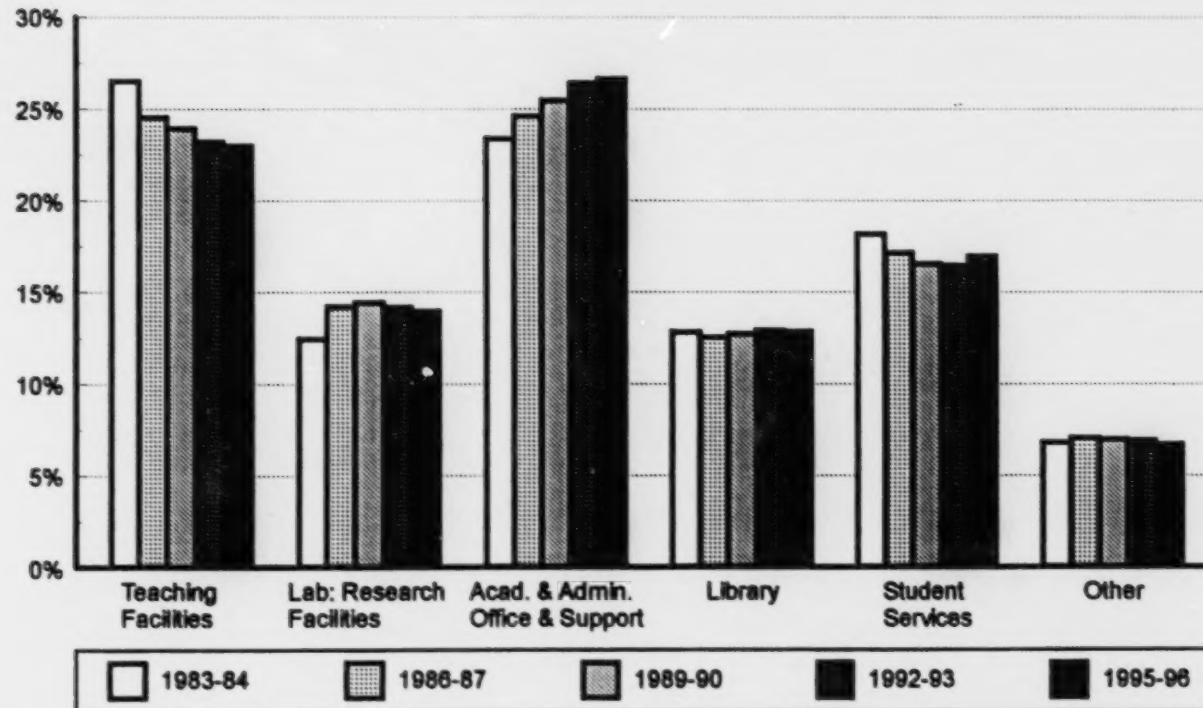
Functional Breakdown of Formula Space* Usage, 1995-96



* Formula space is usable or assignable space for which space standards could normally be developed. The formula categories provide for the full range of functions and services needed in a contemporary university.

Total Formula Space = 2,537,135 NASM.

Figure 3
Formula Space Usage, 1983-84 to 1995-96
(Categories 1-15)*



* Formula space is usable or assignable space for which space standards could normally be developed.

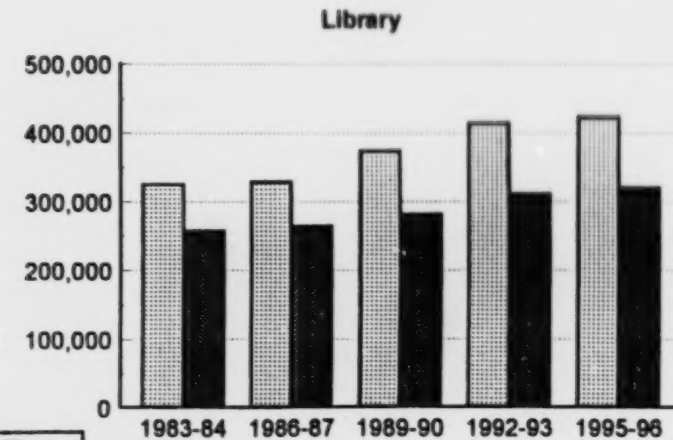
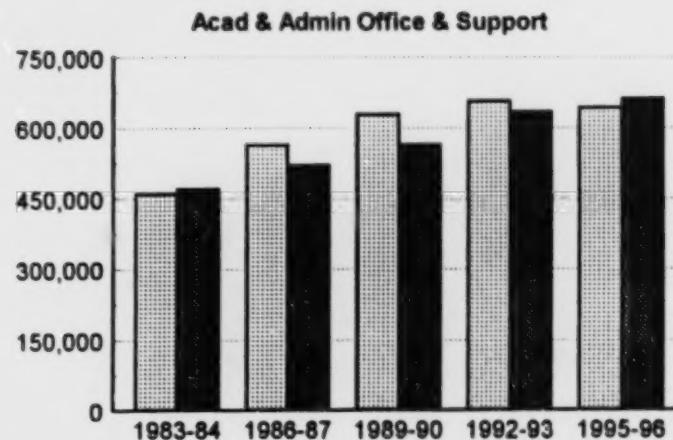
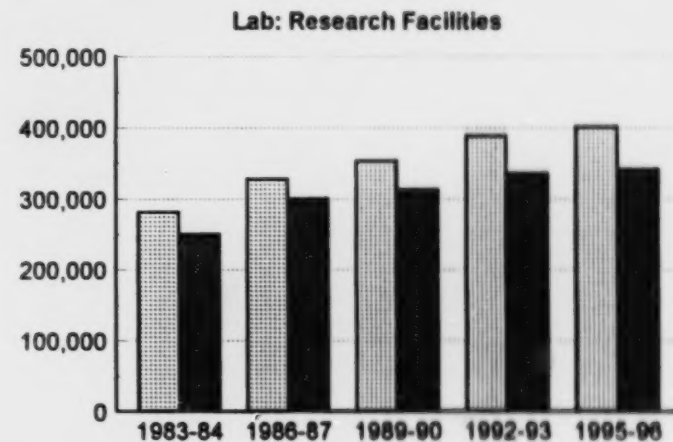
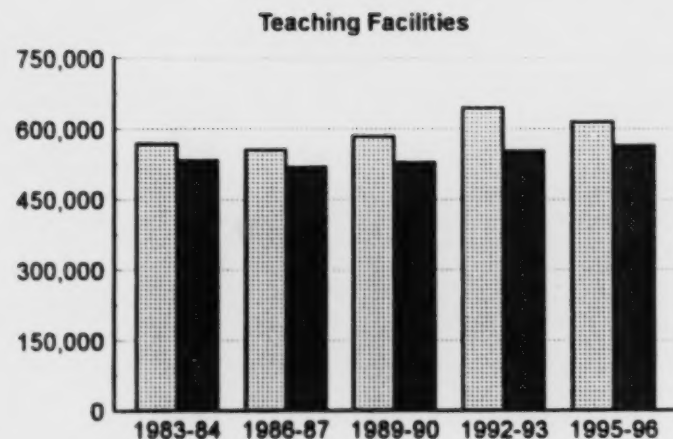
Teaching Facilities: classroom facilities and laboratory undergraduate.

Acad. & Admin. Office: academic office and administrative office.

Student Services: athletic/recreation, food service, bookstore, health service facilities, and common use/student activity

Other: AV/TV facilities, assembly/exhibition facilities, plant maintenance and central services

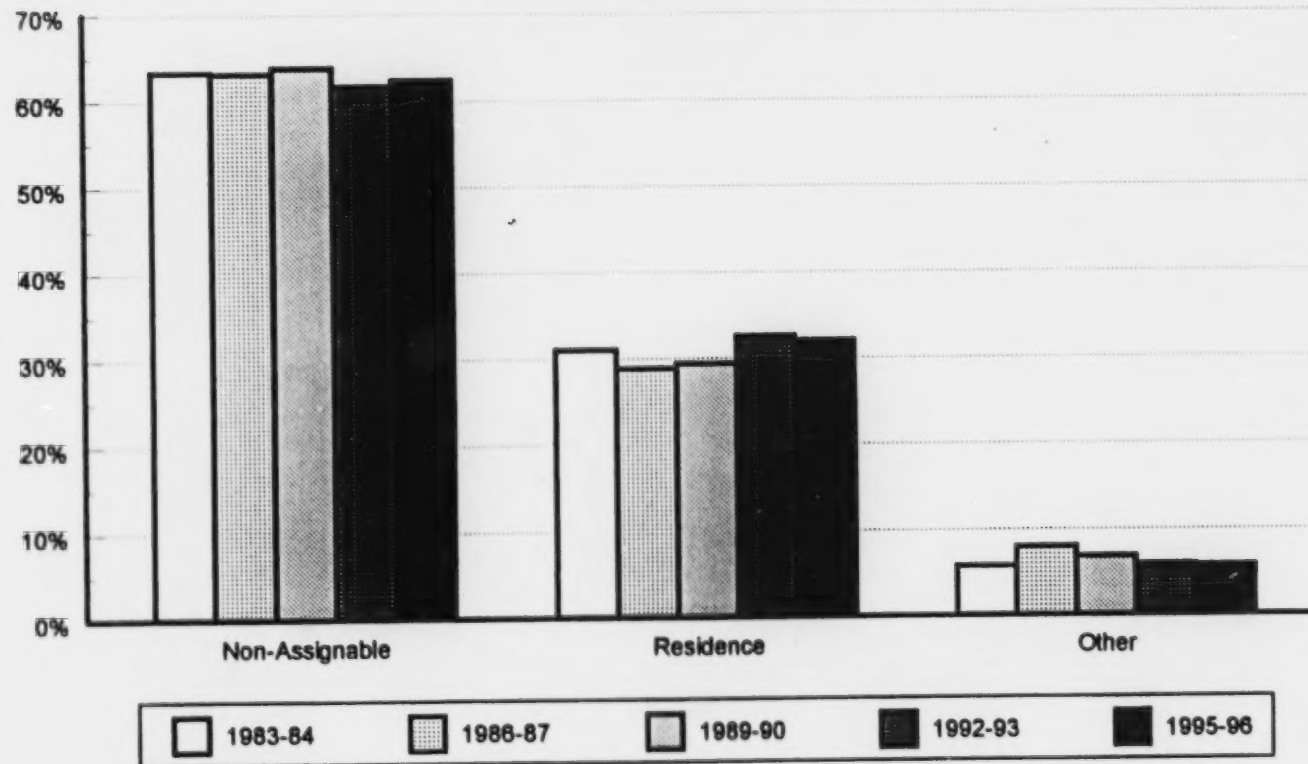
Figure 3A
Generated and Actual NASM Inventory by Selected Functional Area,
1983-84 to 1995-96



Generated
 Actual

Figure 4

Non-Formula Space Usage, 1983-84 to 1995-96
(Categories 16-20) *



* Non-Formula space is highly specialized facilities generally of a unique nature, and non-assignable space.

Non-Assignable: corridors, circulation, mechanical areas, washroom facilities, etc.

Other: health science facilities, animal space, day care facilities, etc.

Figure 5
Total Space Usage, 1983-84 to 1995-96
(All Categories)

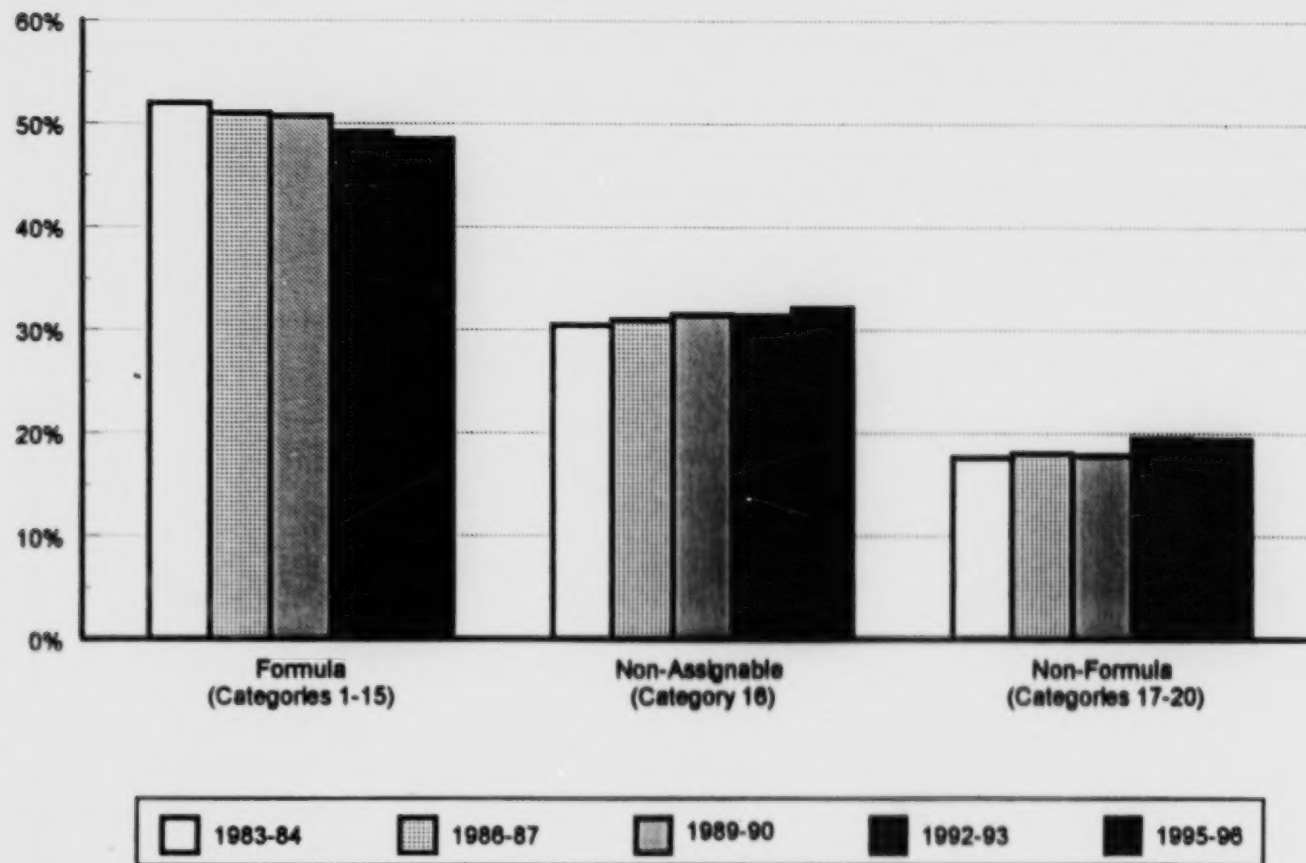
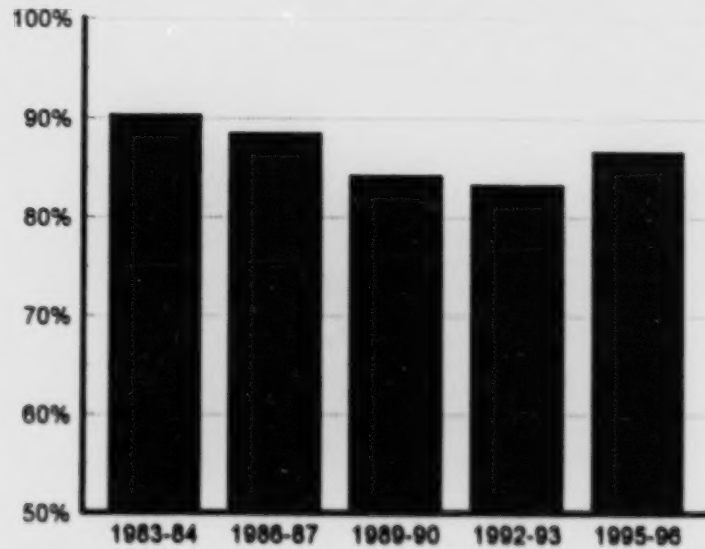


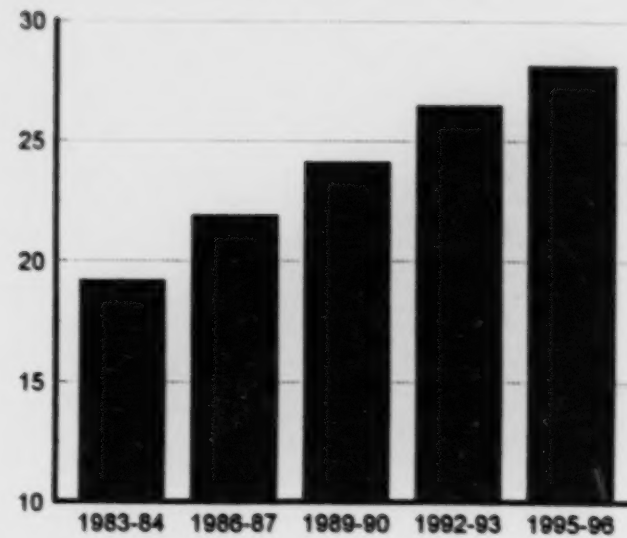
Figure 6 *

Total Actual Inventory / Generated Inventory



	Actual Inventory	Generated Inventory
1983-84	2,032,624	2,253,041
1986-87	2,111,681	2,389,252
1989-90	2,201,474	2,616,338
1992-93	2,448,275	2,943,899
1995-96	2,525,555	2,918,548

Average Age of Buildings



* Includes all institutions reported in each particular year.

SECTION 3

INSTITUTIONAL TABLES

(as a result of the 1995-96 survey)



In interpreting the data from smaller and specialized institutions, it should be noted that the Building Blocks formula was developed for institutions having a full range of university programs and functions. The application of all 15 categories to a very small or special purpose institution may not be appropriate, so results must be interpreted with caution. The same considerations apply in the formula for analysis at the departmental level within an institution.

Table 1

Inventory of University Space, November 1, 1995

Institution	NASM Categories 1-15	NASM Categories 17-20	Scheduled For Demolition	Rentals	Gross Square Metres	Under Construction*
Brock	51,838	27,285	0	0	133,705	0
Carleton	122,524	34,593	0	0	0	0
Guelph	190,664	101,846	3,050	0	496,039	0
Lakehead	53,395	33,374	0	0	141,774	0
Laurentian	59,984	23,364	0	281	132,727	0
Laurentian (Algo)	9,169	1,702	0	0	13,964	0
Laurentian (Hear)	4,823	1,915	0	513	6,738	0
McMaster	174,838	91,889	0	0	448,554	0
Nipissing	12,145	3,379	0	0	7,005	2,374
OCAD	12,737	0	721	660	22,067	0
OISE	20,642	4,295	0	0	38,156	0
Ottawa	169,604	47,833	0	1,897	402,259	4,900
Queen's	190,954	90,541	0	0	486,763	0
Ryerson	106,349	23,255	0	813	224,434	0
Toronto (St. Grge)	448,665	119,973	5,966	3,699	1,052,217	0
Toronto (Erin)	39,092	19,063	0	0	99,225	0
Toronto (Scar)	31,698	11,285	0	0	76,650	0
Trent	39,530	19,507	0	2,231	96,819	0
Waterloo	194,982	98,002	0	2,942	468,634	1,606
Western	247,686	93,955	0	0	596,768	0
WLU	54,914	25,258	0	957	114,764	0
Windsor	106,146	32,469	0	307	241,431	0
York (Main)	182,457	88,429	0	7,739	465,518	0
York (Glen)	15,953	7,615	0	0	41,298	0
TOTAL	2,540,990	1,000,829	9,757	22,039	5,109,508	8,880

* The figures are reported on a "gross" basis.

Table 2

Distribution of NASM by Major Space Category and Institution, 1995-96

	Classroom Facilities	Lab Undergrad	Lab Grad & Faculty	Acad Office & Related	Library & Study Facilities	Recreation/ Athletic Space	Food Service	Bookstore & Merch Facilities	Plant Mainten- ance	Admin Office & Related	AV / TV Facilities	Central Services
Brock	6,083	5,618	4,729	7,348	6,944	6,843	3,062	810	820	4,048	243	1,284
Carleton	12,515	18,256	11,098	26,888	15,370	9,453	6,605	2,009	1,820	8,761	905	1,652
Guelph	12,008	24,190	48,061	30,174	15,163	15,990	7,228	2,104	4,927	19,848	524	3,134
Lakehead	6,166	11,439	4,297	6,651	6,062	4,538	2,995	725	1,374	3,432	317	1,177
Laurentian	6,077	6,762	4,895	8,508	9,113	6,139	3,181	949	2,440	5,153	415	1,240
Laurentian (Algo)	834	611	0	429	2,242	3,282	175	87	136	469	0	388
Laurentian (Hear)	991	588	0	332	446	710	266	23	641	274	61	10
McMaster	14,629	19,249	35,056	31,651	24,558	8,344	5,188	2,359	4,716	12,749	603	5,416
Nipissing	1,627	1,815	0	1,030	1,779	688	700	0	0	899	230	196
OCA	1,524	7,594	0	803	493	0	0	0	197	1,046	37	14
OISE	3,913	0	240	7,348	3,231	0	807	795	926	1,410	288	304
Ottawa	19,702	19,898	22,400	38,928	20,783	6,936	4,020	2,012	984	20,015	1,177	2,325
Queen's	18,076	25,378	29,746	36,091	24,465	13,804	5,761	2,737	3,221	13,553	246	4,519
Ryerson	14,432	31,544	2,921	12,659	8,433	6,270	4,951	1,435	2,024	9,231	1,231	3,659
Toronto (St Grge)	40,184	48,800	76,465	94,873	76,109	28,421	14,860	3,414	6,435	25,145	943	4,502
Toronto (Erin)	5,277	6,059	5,585	5,444	4,296	2,380	2,407	579	679	1,932	216	1,007
Toronto (Scar)	3,589	5,562	3,643	3,732	3,195	3,923	1,800	373	902	1,935	123	748
Trent	4,212	3,756	3,262	5,053	7,211	3,356	3,359	837	1,083	3,886	137	763
Waterloo	17,375	24,344	34,531	37,242	17,282	11,713	11,609	3,243	5,570	13,426	644	7,006
Western	26,620	31,356	33,142	44,701	32,375	15,568	10,343	4,422	5,696	23,381	907	5,670
WLU	6,620	4,219	2,311	7,599	7,212	6,382	1,955	610	1,298	7,023	460	1,202
Windsor	9,809	16,107	10,643	16,707	15,056	10,310	4,447	2,031	1,885	7,903	1,873	1,609
York (Main)	21,673	19,550	12,558	36,514	23,274	12,624	9,147	2,441	2,671	23,518	1,096	2,842
York (Glen)	1,943	798	77	2,350	1,870	2,937	1,161	355	452	2,129	45	246
TOTAL	256,078	333,493	345,662	463,055	326,963	180,809	106,024	34,350	50,893	211,166	12,722	50,917

Table 2 (cont'd)

Distribution of NASM by Major Space Category and Institution, 1995-96

	Health Service Facilities	Student Activity Space	Assembly, Exhibition Facilities	Subtotal Formula Areas	Residential Space	Animal Space	Other	Health Sci Clinical Facilities	Subtotal Non-Formula	Non- Assignable	Total
Brock	70	1,668	2,144	51,713	26,818	0	467	0	27,285	45,692	124,690
Carleton	536	4,649	2,007	122,524	30,196	458	3,940	0	34,593	75,819	232,936
Guelph	350	4,092	2,872	190,664	88,914	2,874	4,252	5,806	101,846	127,781	420,292
Lakehead	201	2,856	1,167	53,395	28,169	0	5,206	0	33,374	32,700	119,470
Laurentian	212	2,744	2,155	59,984	21,870	0	1,310	184	23,364	37,441	120,789
Laurentian (Algo)	0	347	168	9,169	1,377	0	325	0	1,702	370	11,241
Laurentian (Hear)	0	365	115	4,823	426	0	1,488	0	1,915	1,356	8,094
McMaster	449	6,300	3,572	174,838	45,257	1,346	2,718	42,569	91,889	110,099	376,826
Nipissing	0	705	0	9,669	3,262	117	0	0	3,379	0	13,048
OCA	55	293	682	12,737	0	0	0	0	0	5,180	17,917
OISE	0	641	738	20,642	0	0	4,295	0	4,295	9,753	34,689
Ottawa	445	7,043	2,936	169,604	40,440	1,387	3,410	2,596	47,833	122,647	340,084
Queen's	1,091	6,888	5,390	190,964	78,099	1,728	3,201	7,513	90,541	144,675	426,181
Ryerson	150	4,850	2,007	105,796	19,446	0	3,413	0	22,859	17,456	146,111
Toronto (St.Grge)	860	15,950	11,903	448,865	80,753	0	26,903	12,251	119,907	326,434	895,206
Toronto (Erin)	113	2,361	757	39,092	18,413	0	649	0	19,063	28,665	86,820
Toronto (Scar)	104	1,499	570	31,698	10,861	0	424	0	11,285	23,309	66,292
Trent	136	2,471	94	39,616	18,631	0	876	0	19,507	26,469	85,592
Waterloo	532	7,363	3,119	194,998	95,329	0	1,976	702	98,007	134,872	427,877
Western	824	7,070	5,539	247,814	87,112	1,423	4,217	1,203	93,955	141,557	483,326
WLU	117	5,322	2,584	54,914	22,623	0	2,635	0	25,258	35,611	115,783
Windsor	295	6,210	1,261	106,146	32,049	0	421	0	32,469	52,557	191,173
York (Main)	182	9,390	3,561	181,242	86,281	0	1,119	0	87,400	143,275	411,916
York (Glen)	0	1,161	704	16,229	7,615	0	0	0	7,615	11,683	35,528
TOTAL	6,723	102,238	56,043	2,537,135	843,940	9,333	73,245	72,824	999,343	1,655,401	5,191,879

Table 2A

Percent Distribution of NASM by Major Formula Space Category and Institution, 1995-96

	Classroom Facilities	Lab Undergrd	Lab Grad & Faculty	Acad Office & Related	Library & Study Facilities	Recreatn/ Athletic Space	Food Service	Bookstore & Merch Facilities	Plant Mainten- ance	Admin Office & Related	AV / TV Facilities	Central Services	Health Service Facilities	Student Activity Space	Assembly & Exhibiti Facilities	Formula Areas
Brock	12	11	9	14	13	13	6	2	2	8	0	2	0	3	4	100
Carleton	10	15	9	22	13	8	5	2	1	7	1	1	0	4	2	100
Guelph	6	13	25	16	8	8	4	1	3	10	0	2	0	2	2	100
Lakehead	12	21	8	12	11	8	6	1	3	6	1	2	0	5	2	100
Laurentian	10	11	8	14	15	10	5	2	4	9	1	2	0	5	4	100
Laurentian (Algo)	9	7	0	5	24	36	2	1	1	5	0	4	0	4	2	100
Laurentian (Hear)	21	12	0	7	9	15	6	0	13	6	1	0	0	8	2	100
McMaster	8	11	20	18	14	5	3	1	3	7	0	3	0	4	2	100
Nipissing	17	19	0	11	18	7	7	0	0	9	2	2	0	7	0	100
OCA	12	60	0	6	4	0	0	0	2	8	0	0	0	2	5	100
OISE	19	0	1	36	16	0	4	4	4	7	1	1	0	3	4	100
Ottawa	12	12	13	23	12	4	2	1	1	12	1	1	0	4	2	100
Queen's	9	13	16	19	13	7	3	1	2	7	0	2	1	4	3	100
Ryerson	14	30	3	12	8	6	5	1	2	9	1	3	0	5	2	100
Toronto (St.Grge)	9	11	17	21	17	6	3	1	1	6	0	1	0	4	3	100
Toronto (Erin)	13	15	14	14	11	6	6	1	2	5	1	3	0	6	2	100
Toronto (Scar)	11	18	11	12	10	12	6	1	3	6	0	2	0	5	2	100
Trent	11	9	6	13	18	8	8	2	3	10	0	2	0	6	0	100
Waterloo	9	12	18	19	9	6	6	2	3	7	0	4	0	4	2	100
Western	11	13	13	18	13	6	4	2	2	9	0	2	0	3	2	100
WLU	12	8	4	14	13	12	4	1	2	13	1	2	0	10	5	100
Windsor	9	15	10	16	14	10	4	2	2	7	2	2	0	6	1	100
York (Main)	12	11	7	20	13	7	5	1	1	13	1	2	0	5	2	100
York (Glen)	12	5	0	14	12	18	7	2	3	13	0	2	0	7	4	100
TOTAL	10	13	14	18	13	7	4	1	2	8	1	2	0	4	2	100

Table 2B

Percent Distribution of NASM by Major Space Category and Institution, 1995-96

Institution	Formula	Residential Space	Non-Formula			Non- Formula	Non- Assignable	Total
			Animal Space	Other	Hlth Sci Clin Facil.			
Brock	41	22	0	0	0	22	37	100
Carleton	53	13	0	2	0	15	33	100
Guelph	45	21	1	1	1	24	30	100
Lakehead	45	24	0	4	0	28	27	100
Laurentian	50	18	0	1	0	19	31	100
Laurentian (Algo)	82	12	0	3	0	15	3	100
Laurentian (Hear)	60	5	0	18	0	24	17	100
McMaster	48	12	0	1	11	24	29	100
Nipissing	74	25	1	0	0	26	0	100
OCA	71	0	0	0	0	0	29	100
OISE	60	0	0	12	0	12	28	100
Ottawa	50	12	0	1	1	14	36	100
Queen's	45	18	0	1	2	21	34	100
Ryerson	72	13	0	2	0	16	12	100
Toronto (St. Grge)	50	9	0	3	1	13	36	100
Toronto (Erin)	45	21	0	1	0	22	33	100
Toronto (Scar)	48	16	0	1	0	17	35	100
Trent	46	22	0	1	0	23	31	100
Waterloo	46	22	0	0	0	23	32	100
Western	51	18	0	1	0	19	29	100
WLU	47	20	0	2	0	22	31	100
Windsor	56	17	0	0	0	17	27	100
York (Main)	44	21	0	0	0	21	35	100
York (Glen)	46	21	0	0	0	21	33	100
TOTAL	49	18	0	1	1	19	32	100

Table 3

**Age Profile of Ontario University Space
(as of 1 November, 1995) ***

Institution	NASM 0-9 Years	NASM 10-19 Years	NASM 20-29 Years	NASM 30-39 Years	NASM 40-49 Years	NASM 50+ Years	Total NASM	Average Age
Brock	6,843	3,847	40,900	248	0	0	51,838	21.1
Carleton	19,162	3,080	61,981	38,301	0	0	122,524	24.4
Guelph	25,644	2,333	84,342	38,440	6,612	33,294	190,664	34.6
Lakehead	7,565	104	35,186	10,312	0	228	53,395	24.4
Laurentian	9,427	680	29,337	19,496	0	763	59,702	24.1
Laurentian (Algo)	6,437	257	497	0	0	1,977	9,169	17.8
Laurentian (Hear)	0	0	0	4,311	0	0	4,311	37.0
McMaster	12,510	7,496	98,019	40,418	8,289	8,106	174,838	27.9
Nipissing	1,378	0	10,767	0	0	0	12,145	20.8
OCAD	0	7,408	4,669	0	0	0	12,077	21.3
OISE	0	0	20,642	0	0	0	20,642	26.0
Ottawa	11,881	26,318	60,361	32,347	11,078	25,722	167,707	33.6
Queen's	22,148	26,884	83,492	37,486	7,594	13,350	190,954	26.8
Ryerson	20,907	12,026	50,820	21,783	0	0	105,536	21.3
Toronto (St. Grge)	43,574	51,359	124,002	115,754	26,747	83,729	445,166	35.3
Toronto (Erin)	1,891	0	37,150	51	0	0	39,092	23.3
Toronto (Scar)	226	206	31,211	55	0	0	31,698	23.9
Trent	10,079	3,321	21,289	0	0	2,611	37,299	23.9
Waterloo	17,486	19,622	95,548	59,384	0	0	192,040	24.9
Western	26,785	6,853	119,838	64,325	15,421	14,464	247,686	28.2
WLU	23,007	9,425	11,845	8,541	1,139	0	53,957	14.8
Windsor	11,826	13,972	42,962	29,004	5,216	2,858	105,840	25.6
York (Main)	23,362	9,406	123,603	18,146	0	0	174,718	22.7
York (Glen)	0	0	530	13,668	0	1,755	15,953	36.3
TOTAL	302,140	204,597	1,189,191	552,071	82,094	188,858	2,518,951	28.1

* Categories 1-15 only, excluding Rentals.

This table shows that the average age of Ontario university buildings is approaching 30 years, the age when it is generally recognized that major building components need to be renewed. The guidelines for reporting of building age in the COU space survey specify that major renovations which substantially renew a building should be reflected in the age reported, but there are some concerns that adjustments are not always done consistently.

Table 4
Institutional Space Requirements As Measured By COU Space Standards, 1995-96

BROCK

	Input Measure	Space Factor	Generated Space	Inventory	% I/G	System Average	1992-93 % I/G
CLASSROOMS							
Total FTE Students	7,870.60	1.2	9,444.72	6,082.70	64.4	88.5	65.7
CLASS LABS							
Lab Contact Hours W	0.00	0.8	0.00	0.00			
Lab Contact Hours X	11,429.00	0.6	6,857.40	3,737.90			
Lab Contact Hours Y	3,789.00	0.5	1,894.50	793.90			
Lab Contact Hours Z	5,458.00	0.3	1,637.40	1,086.30			
Total Class Lab			10,389.30	5,618.10	54.1	91.3	50.0
RESEARCH							
Research Disciplines A	75.35	45.0	3,390.75	3,529.00			
Research Disciplines B	34.00	30.0	1,020.00	816.40			
Research Disciplines C	10.80	20.0	216.00	218.80			
Research Disciplines D	21.60	10.0	216.00	115.80			
Research Disciplines E	363.60	1.0	363.60	49.40			
Total Research			5,206.35	4,729.40	90.8	84.5	81.8
OFFICE - ACADEMIC							
Total FTE Faculty	345.80	13.0	4,495.40	3,793.80			
Faculty Supplement	51.87	13.0	674.31				
Total FTE Grads	299.10	4.0	1,196.40	665.80			
Total FTE Non-Acad Staff	145.00	13.0	1,885.00	2,887.90			
Office Service	8,251.11	0.3	2,475.33				
Total Academic Office			10,726.44	7,347.50	68.5	92.6	64.6
OFFICE - ADMINISTRATIVE							
Total FTE Non-Acad Staff	273.00	13.0	3,549.00				
Office Service	3,549.00	0.3	1,064.70				
Total Admin. Office			4,613.70	4,047.90	87.7	130.0	75.6
Total Office			15,340.14	11,395.40	74.3	101.8	67.7
LIBRARY							
10% of Total Eq. Volumes	93,808.02	0.004	375.23				
Next 300,000	300,000.00	0.007	2,100.00				
Next 300,000	300,000.00	0.006	1,800.00				
Remainder	244,272.14	0.005	1,221.36				
Total Stack	938,080.16		5,496.59	3,840.70	69.9	74.2	66.4
FTE UG - Excl. Prof.	7,296.40	0.5	3,648.20				
FTE UG - Professional	275.20	1.0	275.20				
FTE Grads	299.10	0.7	209.37				
Total Study	7,870.70		4,132.77	2,084.70	50.4	69.2	40.5
Library Support	9,629.36	0.25	2,407.34	1,018.90	42.3	88.8	59.0
Total Library			12,036.70	6,944.30	57.7	75.6	55.7
PHYSICAL EDUCATION/ATHLETICS							
Under 4,000 FTE Enrol.	0.00						
4,000-8,000 Enrol.	7,870.60		1,000.00				
Total FTE Students	7,870.60	0.9	7,083.54				
Total P.E./Athletics			8,083.54	6,842.70	84.6	76.3	94.6
MAINTENANCE SHOPS							
Total NASM Inv. (exc. 16.0)	78,997.70	0.015	1,184.97	819.90	69.2	94.7	121.3
STUDENT AND CENTRAL SERVICES							
Total FTE Students	7,870.60	2.0	15,741.20	9,280.10	59.0	78.5	57.2
TOTAL FORMULA AREAS			77,426.92	51,712.60	66.8	86.5	66.2

Table 5
Institutional Space Requirements As Measured By COU Space Standards, 1995-96

CARLETON

	Input Measure	Space Factor	Generated Space	Inventory	% I/G	System Average	1992-93 % I/G
CLASSROOMS							
Total FTE Students	15,210.52	1.2	18,252.62	12,515.30	68.6	88.5	67.4
CLASS LABS							
Lab Contact Hours W	6,507.00	0.8	5,206.60	3,330.00			
Lab Contact Hours X	16,893.50	0.6	10,136.10	11,662.60			
Lab Contact Hours Y	1,643.00	0.5	821.50	548.80			
Lab Contact Hours Z	2,464.00	0.3	739.20	2,494.50			
Total Class Lab			16,902.40	18,255.90	108.0	91.3	100.4
RESEARCH							
Research Disciplines A	152.00	45.0	6,840.00	5,553.30			
Research Disciplines B	239.85	30.0	7,196.50	3,266.90			
Research Disciplines C	205.40	20.0	4,108.00	1,670.60			
Research Disciplines D	60.95	10.0	609.50	23.80			
Research Disciplines E	1,024.75	1.0	1,024.75	583.10			
Total Research			19,777.75	11,097.70	56.1	84.5	49.9
OFFICE - ACADEMIC							
Total FTE Faculty	705.10	13.0	9,166.30	11,014.80			
Faculty Supplement	105.77	13.0	1,374.85				
Total FTE Grads	1,916.70	4.0	7,666.80	5,448.40			
Total FTE Non-Acd Staff	287.05	13.0	3,731.65	10,424.30			
Office Service	21,939.70	0.3	6,581.91				
Total Academic Office			28,521.60	26,867.50	94.3	92.6	82.2
OFFICE - ADMINISTRATIVE							
Total FTE Non-Acd Staff	493.87	13.0	6,420.31				
Office Service	6,420.31	0.3	1,926.09				
Total Admin. Office			8,346.40	8,760.60	105.0	130.0	94.3
Total Office			36,868.01	35,648.10	96.7	101.8	84.9
LIBRARY							
10% of Total Eq. Volumes	196,971.88	0.004	787.89				
Next 300,000	300,000.00	0.007	2,100.00				
Next 300,000	300,000.00	0.006	1,800.00				
Remainder	1,172,746.93	0.005	5,863.73				
Total Stack	1,969,718.82		10,551.62	4,560.30	43.2	74.2	40.2
FTE UG - Excl. Prof.	13,293.82	0.5	6,646.91				
FTE UG - Professional	0.00	1.0	0.00				
FTE Grads	1,916.70	0.7	1,341.89				
Total Study	15,210.52		7,988.60	6,930.70	86.8	69.2	93.7
Library Support	18,540.22	0.25	4,635.06	3,879.10	83.7	88.8	86.8
Total Library			23,175.28	15,370.10	66.3	75.6	69.9
PHYSICAL EDUCATION/ATHLETICS							
Under 4,000 FTE Enrol.	0.00						
4,000-8,000 Enrol.	0.00						
Total FTE Students	15,210.52	0.9	13,689.46				
Total P.E./Athletics			13,689.46	9,452.60	69.1	76.3	63.3
MAINTENANCE SHOPS							
Total NASM Inv. (exc. 16.0)	157,116.90	0.015	2,356.75	1,820.20	77.2	94.7	81.2
STUDENT AND CENTRAL SERVICES							
Total FTE Students	15,210.52	2.0	30,421.03	18,363.60	60.4	76.5	55.3
TOTAL FORMULA AREAS							
			181,443.30	122,523.50	75.9	86.5	70.4

Table 6
Institutional Space Requirements As Measured By COU Space Standards, 1995-96

GUELPH

	Input Measure	Space Factor	Generated Space	Inventory	% I / G	System Average	1992-93 % I / G
CLASSROOMS							
Total FTE Students	11,742.96	1.2	14,091.55	12,007.81	85.2	88.5	73.4
CLASS LABS							
Lab Contact Hours W	16,398.30	0.8	13,118.64	9,424.86			
Lab Contact Hours X	32,184.40	0.6	19,310.64	11,817.02			
Lab Contact Hours Y	2,754.00	0.5	1,377.00	1,546.81			
Lab Contact Hours Z	7,651.00	0.3	2,295.30	873.21			
Total Class Lab			36,101.58	23,461.90	65.0	91.3	59.3
RESEARCH							
Research Disciplines A	754.90	45.0	33,970.50	38,863.57			
Research Disciplines B	105.65	30.0	3,169.50	1,624.17			
Research Disciplines C	52.56	20.0	1,051.20	699.49			
Research Disciplines D	209.64	10.0	2,096.40	5,858.15			
Research Disciplines E	482.34	1.0	482.34	676.87			
Total Research			40,779.94	47,722.25	117.0	84.5	108.6
OFFICE - ACADEMIC							
Total FTE Faculty	793.80	13.0	10,319.40	12,834.94			
Faculty Supplement	119.07	13.0	1,547.91				
Total FTE Grads	1,562.60	4.0	6,250.40	5,505.66			
Total FTE Non-Acd Staff	238.65	13.0	3,102.45	11,833.19			
Office Service	21,220.16	0.3	6,366.05				
Total Academic Office			27,586.21	30,173.79	109.4	92.6	104.0
OFFICE - ADMINISTRATIVE							
Total FTE Non-Acd Staff	561.44	13.0	7,298.72				
Office Service	7,298.72	0.3	2,189.62				
Total Admin. Office			9,488.34	19,847.57	209.2	130.0	190.1
Total Office			37,074.54	50,021.36	134.9	101.8	125.7
LIBRARY							
10% of Total Eq. Volumes	219,273.58	0.004	877.09				
Next 300,000	300,000.00	0.007	2,100.00				
Next 300,000	300,000.00	0.006	1,800.00				
Remainder	1,373,462.21	0.005	6,867.31				
Total Stack	2,192,735.79		11,644.41	6,849.17	58.8	74.2	55.1
FTE UG - Excl. Prof.	9,779.66	0.5	4,889.83				
FTE UG - Professional	400.70	1.0	400.70				
FTE Grads	1,562.60	0.7	1,093.82				
Total Study	11,742.96		6,384.35	5,222.05	81.8	69.2	74.9
Library Support	18,028.76	0.25	4,507.19	3,091.99	68.6	88.8	64.3
Total Library			22,535.94	15,163.21	67.3	75.6	62.7
PHYSICAL EDUCATION/ATHLETICS							
Under 4,000 FTE Enrol.	0.00						
4,000-8,000 Enrol.	0.00						
Total FTE Students	11,742.96	0.9	10,568.66				
Total P.E./Athletics			10,568.66	15,990.16	151.3	76.3	123.5
MAINTENANCE SHOPS							
Total NASM Inv. (exc. 16.0)	292,510.80	0.015	4,387.66	4,926.63	112.3	94.7	118.1
STUDENT AND CENTRAL SERVICES							
Total FTE Students	11,742.96	2.0	23,485.92	20,303.51	86.4	76.5	78.2
TOTAL FORMULA AREAS			189,025.80	189,596.83	100.3	86.5	90.9

Table 7
Institutional Space Requirements As Measured By COU Space Standards, 1995-96

LAKEHEAD

	Input Measure	Space Factor	Generated Space	Inventory	% I / G	System Average	1992-93 % I / G
CLASSROOMS							
Total FTE Students	6,178.51	1.2	7,414.21	6,165.70	83.2	88.5	85.8
CLASS LABS							
Lab Contact Hours W	1,987.00	0.8	1,589.60	2,677.00			
Lab Contact Hours X	10,616.00	0.6	6,369.60	5,401.60			
Lab Contact Hours Y	5,628.00	0.5	2,814.00	2,280.00			
Lab Contact Hours Z	2,825.00	0.3	847.50	1,080.20			
Total Class Lab			11,620.70	11,438.80	98.4	91.3	90.9
RESEARCH							
Research Disciplines A	53.68	45.0	2,416.05	2,244.00			
Research Disciplines B	96.91	30.0	2,907.30	1,548.30			
Research Disciplines C	49.46	20.0	989.20	478.60			
Research Disciplines D	9.62	10.0	96.20	0.00			
Research Disciplines E	249.25	1.0	249.25	26.50			
Total Research			6,658.00	4,297.40	64.5	84.5	62.5
OFFICE - ACADEMIC							
Total FTE Faculty	315.33	13.0	4,099.29	4,076.40			
Faculty Supplement	47.30	13.0	614.89				
Total FTE Grads	273.20	4.0	1,092.80	767.20			
Total FTE Non-Acd Staff	73.00	13.0	949.00	1,807.40			
Office Service	6,755.98	0.3	2,026.80				
Total Academic Office			8,782.78	6,651.00	75.7	92.6	75.0
OFFICE - ADMINISTRATIVE							
Total FTE Non-Acd Staff	241.50	13.0	3,139.50				
Office Service	3,139.50	0.3	941.85				
Total Admin. Office			4,081.35	3,431.80	84.1	130.0	82.7
Total Office			12,864.13	10,082.80	78.4	101.8	77.5
LIBRARY							
10% of Total Eq Volumes	77,034.85	0.004	308.14				
Next 300,000	300,000.00	0.007	2,100.00				
Next 300,000	300,000.00	0.006	1,800.00				
Remainder	93,313.63	0.005	466.57				
Total Stack	770,348.48		4,674.71	3,145.50	67.3	74.2	58.8
FTE UG - Excl Prof	5,588.62	0.5	2,794.31				
FTE UG - Professional	316.70	1.0	316.70				
FTE Grads	273.20	0.7	191.24				
Total Study	6,178.51		3,302.24	1,706.70	54.4	69.2	52.1
Library Support	7,976.95	0.25	1,994.24	1,119.70	56.1	88.8	53.8
Total Library			9,971.19	6,061.90	60.8	75.6	55.6
PHYSICAL EDUCATION/ATHLETICS							
Under 4,000 FTE Enrol	0.00						
4,000-8,000 Enrol	6,178.51		1,000.00				
Total FTE Students	6,178.51	0.9	5,560.66				
Total P.E./Athletics			6,560.66	4,537.70	69.2	76.3	87.7
MAINTENANCE SHOPS							
Total NASM Inv. (exc. 16.0)	86,789.80	0.015	1,301.55	1,373.50	105.5	94.7	125.4
STUDENT AND CENTRAL SERVICES							
Total FTE Students	6,178.51	2.0	12,357.02	9,437.60	76.4	76.5	84.2
TOTAL FORMULA AREAS							
			68,747.46	53,395.40	77.7	86.5	79.2

Table 8
Institutional Space Requirements As Measured By COU Space Standards, 1995-96

LAURENTIAN

	Input Measure	Space Factor	Generated Space	Inventory	% I / G	System Average	1992-93 % I / G
CLASSROOMS							
Total FTE Students	5,988.87	1.2	7,186.65	6,077.44	84.6	88.5	74.2
CLASS LABS							
Lab Contact Hours W	361.00	0.8	288.80	1,345.12			
Lab Contact Hours X	7,842.50	0.8	4,585.50	4,059.20			
Lab Contact Hours Y	1,963.00	0.5	981.50	716.27			
Lab Contact Hours Z	491.00	0.3	147.30	641.05			
Total Class Lab			6,003.10	6,761.64	112.6	91.3	110.7
RESEARCH							
Research Disciplines A	94.50	45.0	4,252.50	2,844.71			
Research Disciplines B	43.00	30.0	1,290.00	641.30			
Research Disciplines C	16.50	20.0	330.00	78.78			
Research Disciplines D	24.75	10.0	247.50	536.06			
Research Disciplines E	306.99	1.0	306.99	794.54			
Total Research			6,426.99	4,895.39	76.2	84.5	86.8
OFFICE - ACADEMIC							
Total FTE Faculty	346.74	13.0	4,507.62	5,365.54			
Faculty Supplement	52.01	13.0	676.14				
Total FTE Grads	216.87	4.0	867.47	365.01			
Total FTE Non-Acad Staff	64.00	13.0	832.00	2,777.53			
Office Service	6,883.23	0.3	2,064.97				
Total Academic Office			8,948.20	8,508.08	95.1	92.6	102.0
OFFICE - ADMINISTRATIVE							
Total FTE Non-Acad Staff	186.00	13.0	2,418.00				
Office Service	2,418.00	0.3	725.40				
Total Admin. Office			3,143.40	5,153.06	163.9	130.0	145.3
Total Office			12,091.60	13,661.14	113.0	101.8	113.9
LIBRARY							
10% of Total Eq. Volumes	114,100.36	0.004	456.40				
Next 300,000	300,000.00	0.007	2,100.00				
Next 300,000	300,000.00	0.006	1,800.00				
Remainder	426,903.28	0.005	2,134.52				
Total Stack	1,141,003.64		6,490.92	4,548.42	70.1	74.2	98.6
FTE UG - Excl. Prof.	5,587.56	0.5	2,793.78				
FTE UG - Professional	184.45	1.0	184.45				
FTE Grads	216.87	0.7	151.81				
Total Study	5,988.87		3,130.03	2,812.42	89.9	69.2	87.4
Library Support	9,620.95	0.25	2,405.24	1,751.91	72.8	88.8	105.4
Total Library			12,026.19	9,112.75	75.8	75.6	96.2
PHYSICAL EDUCATION/ATHLETICS							
Under 4,000 FTE Enrol.	0.00						
4,000-8,000 Enrol.	5,988.87		1,000.00				
Total FTE Students	5,988.87	0.9	5,389.99				
Total P.E./Athletics			6,389.99	6,138.56	96.1	76.3	82.8
MAINTENANCE SHOPS							
Total NASM Inv. (exc. 16.0)	83,347.52	0.015	1,250.21	2,439.78	195.1	94.7	149.2
STUDENT AND CENTRAL SERVICES							
Total FTE Students	5,988.87	2.0	11,977.75	10,896.90	91.0	76.5	91.9
TOTAL FORMULA AREAS			63,352.47	59,983.60	94.7	86.5	96.3

Table 9
Institutional Space Requirements As Measured By COU Space Standards, 1995-96

ALGOMA

	Input Measure	Space Factor	Generated Space	Inventory	% I/G	System Average	1992-93 % I/G
CLASSROOMS							
Total FTE Students	651.17	1.2	781.40	834.44	106.8	88.5	100.7
CLASS LABS							
Lab Contact Hours W	0.00	0.8	0.00	0.00			
Lab Contact Hours X	168.00	0.6	100.80	186.98			
Lab Contact Hours Y	0.00	0.5	0.00	0.00			
Lab Contact Hours Z	799.00	0.3	239.70	396.35			
Total Class Lab			340.50	583.33	171.3	91.3	86.2
RESEARCH							
Research Disciplines A	2.00	45.0	90.00	0.00			
Research Disciplines B	6.50	30.0	195.00	0.00			
Research Disciplines C	0.00	20.0	0.00	0.00			
Research Disciplines D	6.56	10.0	65.55	0.00			
Research Disciplines E	32.67	1.0	32.67	0.00			
Total Research			383.22	0.00	0.0	84.5	0.0
OFFICE - ACADEMIC							
Total FTE Faculty	47.72	13.0	620.37	321.56			
Faculty Supplement	7.16	13.0	93.06				
Total FTE Grads	0.00	4.0	0.00	0.00			
Total FTE Non-Acd Staff	18.00	13.0	234.00	107.90			
Office Service	947.43	0.3	284.23				
Total Academic Office			1,231.66	429.46	34.9	92.6	32.0
OFFICE - ADMINISTRATIVE							
Total FTE Non-Acd Staff	23.00	13.0	299.00				
Office Service	299.00	0.3	89.70				
Total Admin. Office			388.70	469.43	120.8	130.0	126.3
Total Office			1,620.36	898.89	55.5	101.8	52.5
LIBRARY							
10% of Total Eq. Volumes	1,987.13	0.004	7.95				
Next 300,000	196,725.43	0.007	1,377.08				
Next 300,000	0.00	0.006	0.00				
Remainder	0.00	0.005	0.00				
Total Stack	198,712.56		1,385.03	1,313.74	94.9	74.2	143.4
FTE UG - Excl. Prof.	651.17	0.5	325.59				
FTE UG - Professional	0.00	1.0	0.00				
FTE Grads	0.00	0.7	0.00				
Total Study	651.17		325.59	325.46	100.0	69.2	94.3
Library Support	1,710.61	0.25	427.65	602.62	140.9	88.8	191.1
Total Library			2,138.26	2,241.82	104.8	75.6	142.2
PHYSICAL EDUCATION/ATHLETICS							
Under 4,000 FTE Enrol.	651.17		2,000.00				
4,000-8,000 Enrol.	0.00						
Total FTE Students	651.17	0.9	586.05				
Total P.E./Athletics			2,586.05	3,281.88	126.9	76.3	125.2
MAINTENANCE SHOPS							
Total NASM Inv. (exc. 16.0)	10,871.19	0.015	163.07	135.55	83.1	94.7	95.2
STUDENT AND CENTRAL SERVICES							
Total FTE Students	651.17	2.0	1,302.34	1,165.07	89.5	76.5	84.4
TOTAL FORMULA AREAS							
			9,315.20	9,140.98	98.1	86.5	96.2

Table 10
Institutional Space Requirements As Measured By COU Space Standards, 1995-96

HEARST

	Input Measure	Space Factor	Generated Space	Inventory	% I / G	System Average	1992-93 % I / G
CLASSROOMS							
Total FTE Students	324.00	1.2	388.80	990.57	254.8	88.5	807.5
CLASS LABS							
Lab Contact Hours W	0.00	0.8	0.00	0.00			
Lab Contact Hours X	180.00	0.6	108.00	108.00			
Lab Contact Hours Y	240.00	0.5	120.00	120.00			
Lab Contact Hours Z	777.00	0.3	233.10	233.10			
Total Class Lab			461.10	461.10	100.0	91.3	261.3
RESEARCH							
Research Disciplines A	1.00	45.0	45.00	0.00			
Research Disciplines B	3.00	30.0	90.00	0.00			
Research Disciplines C	0.00	20.0	0.00	0.00			
Research Disciplines D	1.00	10.0	10.00	0.00			
Research Disciplines E	15.00	1.0	15.00	0.00			
Total Research			160.00	0.00	0.0	84.5	0.0
OFFICE - ACADEMIC							
Total FTE Faculty	20.00	13.0	260.00	275.63			
Faculty Supplement	3.00	13.0	39.00				
Total FTE Grads	0.00	4.0	0.00	0.00			
Total FTE Non-Acd Staff	17.00	13.0	221.00	56.80			
Office Service	520.00	0.3	156.00				
Total Academic Office			676.00	332.43	49.2	92.6	44.7
OFFICE - ADMINISTRATIVE							
Total FTE Non-Acd Staff	10.00	13.0	130.00				
Office Service	130.00	0.3	39.00				
Total Admin. Office			169.00	274.40	162.4	130.0	116.0
Total Office			845.00	606.83	71.8	101.8	60.4
LIBRARY							
10% of Total Eq. Volumes	5,200.71	0.004	20.80				
Next 300,000	46,806.41	0.007	327.64				
Next 300,000	0.00	0.006	0.00				
Remainder	0.00	0.005	0.00				
Total Stack	52,007.12		348.45	320.46	92.0	74.2	109.2
FTE UG - Excl. Prof	324.00	0.5	162.00				
FTE UG - Professional	0.00	1.0	0.00				
FTE Grads	0.00	0.7	0.00				
Total Study	324.00		162.00	41.89	25.9	69.2	72.1
Library Support	510.45	0.25	127.61	83.67	65.6	88.8	95.2
Total Library			638.06	446.02	69.9	75.6	101.5
PHYSICAL EDUCATION/ATHLETICS							
Under 4,000 FTE Enrol.	324.00		2,000.00				
4,000-8,000 Enrol.	0.00						
Total FTE Students	324.00	0.9	291.60				
Total P.E./Athletics			2,291.60	709.85	31.0	76.3	33.7
MAINTENANCE SHOPS							
Total NASM Inv. (exc. 16.0)	6,737.99	0.015	101.07	640.64	633.9	94.7	472.2
STUDENT AND CENTRAL SERVICES							
Total FTE Students	324.00	2.0	648.00	841.31	129.8	76.5	345.2
TOTAL FORMULA AREAS			5,533.63	4,696.32	84.9	86.5	113.1

Table 11
Institutional Space Requirements As Measured By COU Space Standards, 1995-96

McMASTER

	Input Measure	Space Factor	Generated Space	Inventory	% I / G	System Average	1992-93 % I / G
CLASSROOMS							
Total FTE Students	14,549.30	1.2	17,459.16	14,629.20	83.8	88.5	78.5
CLASS LABS							
Lab Contact Hours W	4,609.00	0.8	3,687.20	2,224.22			
Lab Contact Hours X	20,321.17	0.6	12,192.70	12,127.85			
Lab Contact Hours Y	9,336.89	0.5	4,668.35	3,739.82			
Lab Contact Hours Z	4,942.00	0.3	1,482.60	1,157.29			
Total Class Lab			22,030.85	19,249.18	87.4	91.3	72.1
RESEARCH							
Research Disciplines A	545.24	45.0	24,535.96	21,002.24			
Research Disciplines B	264.10	30.0	7,923.00	12,104.32			
Research Disciplines C	170.48	20.0	3,409.50	1,417.77			
Research Disciplines D	74.99	10.0	749.88	531.51			
Research Disciplines E	799.14	1.0	799.14	0.00			
Total Research			37,417.50	35,055.84	93.7	84.5	96.3
OFFICE - ACADEMIC							
Total FTE Faculty	865.90	13.0	11,256.66	11,851.20			
Faculty Supplement	129.88	13.0	1,688.50				
Total FTE Grads	1,766.10	4.0	7,064.40	4,887.20			
Total FTE Non-Acd Staff	444.70	13.0	5,781.10	14,912.30			
Office Service	25,790.66	0.3	7,737.20				
Total Academic Office			33,527.86	31,650.70	94.4	92.6	86.9
OFFICE - ADMINISTRATIVE							
Total FTE Non-Acd Staff	665.40	13.0	8,650.20				
Office Service	8,650.20	0.3	2,595.06				
Total Admin. Office			11,245.26	12,749.20	113.4	130.0	101.1
Total Office			44,773.12	44,399.90	99.2	101.8	90.4
LIBRARY							
10% of Total Eq. Volumes	261,225.44	0.004	1,044.90				
Next 300,000	300,000.00	0.007	2,100.00				
Next 300,000	300,000.00	0.006	1,800.00				
Remainder	1,751,028.92	0.005	8,755.14				
Total Stack	2,612,254.35		13,700.05	14,338.20	104.7	74.2	99.4
FTE UG - Excl. Prof	11,911.10	0.5	5,955.55				
FTE UG - Professional	872.10	1.0	872.10				
FTE Grads	1,766.10	0.7	1,236.27				
Total Study	14,549.30		8,063.92	4,363.20	54.1	69.2	61.5
Library Support	21,763.97	0.25	5,440.99	5,856.40	107.6	88.8	60.3
Total Library			27,204.96	24,557.80	90.3	75.6	80.3
PHYSICAL EDUCATION/ATHLETICS							
Under 4,000 FTE Enrol	0.00						
4,000-8,000 Enrol	0.00						
Total FTE Students	14,549.30	0.9	13,094.37				
Total P.E./Athletics			13,094.37	8,343.90	63.7	76.3	56.0
MAINTENANCE SHOPS							
Total NASM Inv. (exc. 16.0)	266,727.40	0.015	4,000.91	4,716.10	117.9	94.7	97.5
STUDENT AND CENTRAL SERVICES							
Total FTE Students	14,549.30	2.0	29,098.60	23,886.30	82.1	76.5	81.4
TOTAL FORMULA AREAS			195,079.47	174,838.22	89.6	86.5	83.5

Table 12
Institutional Space Requirements As Measured By COU Space Standards, 1995-96

NIPISSING

	Input Measure	Space Factor	Generated Space	Inventory	% I/G	System Average	1992-93 % I/G
CLASSROOMS							
Total FTE Students	1,868.84	1.2	2,242.61	1,627.00	72.5	88.5	80.6
CLASS LABS							
Lab Contact Hours W	0.00	0.8	0.00	0.00			
Lab Contact Hours X	1,343.00	0.6	805.80	305.00			
Lab Contact Hours Y	11,944.00	0.5	5,972.00	1,438.00			
Lab Contact Hours Z	946.00	0.3	283.80	72.00			
Total Class Lab			7,061.60	1,815.00	25.7	91.3	26.5
RESEARCH							
Research Disciplines A	2.00	45.0	90.00	0.00			
Research Disciplines B	6.00	30.0	180.00	0.00			
Research Disciplines C	0.00	20.0	0.00	0.00			
Research Disciplines D	11.00	10.0	110.00	0.00			
Research Disciplines E	89.90	1.0	89.90	0.00			
Total Research			469.90	0.00	0.0	84.5	0.0
OFFICE - ACADEMIC							
Total FTE Faculty	96.00	13.0	1,248.00	806.00			
Faculty Supplement	14.40	13.0	187.20				
Total FTE Grads	25.80	4.0	103.20	0.00			
Total FTE Non-Acd Staff	10.00	13.0	130.00	224.00			
Office Service	1,668.40	0.3	500.52				
Total Academic Office			2,168.92	1,030.00	47.5	92.6	50.9
OFFICE - ADMINISTRATIVE							
Total FTE Non-Acd Staff	57.50	13.0	747.50				
Office Service	747.50	0.3	224.25				
Total Admin. Office			971.75	899.00	92.5	130.0	93.3
Total Office			3,140.67	1,929.00	61.4	101.8	64.0
LIBRARY							
10% of Total Eq. Volumes	18,075.38	0.004	72.30				
Next 300,000	162,678.42	0.007	1,138.75				
Next 300,000	0.00	0.006	0.00				
Remainder	0.00	0.005	0.00				
Total Stack	180,753.80		1,211.05	1,351.28	111.6	74.2	74.1
FTE UG - Excl. Prof.	1,441.80	0.5	720.90				
FTE UG - Professional	401.24	1.0	401.24				
FTE Grads	25.80	0.7	18.06				
Total Study	1,868.84		1,140.20	0.00	0.0	89.2	0.0
Library Support	2,351.25	0.25	587.81	427.88	72.8	88.8	61.4
Total Library			2,939.06	1,779.16	60.5	75.6	43.9
PHYSICAL EDUCATION/ATHLETICS							
Under 4,000 FTE Enrol	1,868.84		2,000.00				
4,000-8,000 Enrol	0.00						
Total FTE Students	1,868.84	0.9	1,681.96				
Total P.E./Athletics			3,681.96	687.50	18.7	76.3	20.0
MAINTENANCE SHOPS							
Total NASM Inv. (exc. 16.0)	15,544.00	0.015	233.16	0.00	0.0	94.7	0.0
STUDENT AND CENTRAL SERVICES							
Total FTE Students	1,868.84	2.0	3,737.68	1,831.00	49.0	76.5	41.8
TOTAL FORMULA AREAS			23,506.64	9,668.66	41.1	86.5	39.7

Table 13
Institutional Space Requirements As Measured By COU Space Standards, 1995-96

OCA

	Input Measure	Space Factor	Generated Space	Inventory	% I/G	System Average	1992-93 % I/G
CLASSROOMS							
Total FTE Students	1,755.73	1.2	2,106.88	1,524.30	72.3	88.5	27.4
CLASS LABS							
Lab Contact Hours W	0.00	0.8	0.00	0.00			
Lab Contact Hours X	28,378.50	0.6	17,027.10	7,583.70			
Lab Contact Hours Y	0.00	0.5	0.00	0.00			
Lab Contact Hours Z	0.00	0.3	0.00	0.00			
Total Class Lab			17,027.10	7,583.70	44.6	91.3	n/a
RESEARCH							
Research Disciplines A	0.00	45.0	0.00	0.00			
Research Disciplines B	0.00	30.0	0.00	0.00			
Research Disciplines C	0.00	20.0	0.00	0.00			
Research Disciplines D	53.42	10.0	534.20	0.00			
Research Disciplines E	54.02	1.0	54.02	0.00			
Total Research			588.22	0.00	0.0	84.5	0.0
OFFICE - ACADEMIC							
Total FTE Faculty	107.44	13.0	1,396.72	639.70			
Faculty Supplement	16.12	13.0	209.51				
Total FTE Grads	0.00	4.0	0.00	0.00			
Total FTE Non-Acd Staff	19.17	13.0	249.21	163.10			
Office Service	1,855.44	0.3	556.63				
Total Academic Office			2,412.07	802.80	33.3	92.6	23.7
OFFICE - ADMINISTRATIVE							
Total FTE Non-Acd Staff	40.10	13.0	521.30				
Office Service	521.30	0.3	156.39				
Total Admin. Office			677.69	1,045.90	154.3	130.0	104.3
Total Office			3,089.76	1,848.70	59.8	101.8	41.2
LIBRARY							
10% of Total Eq. Volumes	6,113.80	0.004	24.46				
Next 300,000	55,024.20	0.007	385.17				
Next 300,000	0.00	0.006	0.00				
Remainder	0.00	0.005	0.00				
Total Stack	61,138.00		409.62	342.90	83.7	74.2	86.7
FTE UG - Excl. Prof.	1,755.73	0.5	877.87				
FTE UG - Professional	0.00	1.0	0.00				
FTE Grads	0.00	0.7	0.00				
Total Study	1,755.73		877.87	98.20	11.2	69.2	0.0
Library Support	1,287.49	0.25	321.87	52.30	16.2	88.8	30.7
Total Library			1,609.36	493.40	30.7	75.6	28.1
PHYSICAL EDUCATION/ATHLETICS							
Under 4,000 FTE Enrol.	1,755.73		2,000.00				
4,000-8,000 Enrol.	0.00						
Total FTE Students	1,755.73	0.9	1,580.16				
Total P.E./Athletics			3,580.16	0.00	0.0	76.3	0.0
MAINTENANCE SHOPS							
Total NASM Inv. (exc. 16.0)	12,737.10	0.015	191.06	196.60	102.9	94.7	103.5
STUDENT AND CENTRAL SERVICES							
Total FTE Students	1,755.73	2.0	3,511.47	1,080.40	30.8	76.5	44.8
TOTAL FORMULA AREAS			31,704.01	12,737.10	40.2	86.5	77.6

Table 14
Institutional Space Requirements As Measured By COU Space Standards, 1995-96

DISE

	Input Measure	Space Factor	Generated Space	Inventory	% I / G	System Average	1992-93 % I / G
CLASSROOMS							
Total FTE Students	1,300.70	1.2	1,560.84	3,912.97	250.7	88.5	223.2
CLASS LABS							
Lab Contact Hours W	0.00	0.8	0.00	0.00			
Lab Contact Hours X	0.00	0.6	0.00	0.00			
Lab Contact Hours Y	0.00	0.5	0.00	0.00			
Lab Contact Hours Z	0.00	0.3	0.00	0.00			
Total Class Lab			0.00	0.00	0.0	91.3	0.0
RESEARCH							
Research Disciplines A	0.00	45.0	0.00	0.00			
Research Disciplines B	0.00	30.0	0.00	0.00			
Research Disciplines C	0.00	20.0	0.00	0.00			
Research Disciplines D	0.00	10.0	0.00	0.00			
Research Disciplines E	768.85	1.0	768.85	240.18			
Total Research			768.85	240.18	31.2	84.5	15.3
OFFICE - ACADEMIC							
Total FTE Faculty	118.50	13.0	1,540.50	2,015.03			
Faculty Supplement	17.78	13.0	231.08				
Total FTE Grads	1,300.70	4.0	5,202.80	1,869.50			
Total FTE Non-Acd Staff	91.71	13.0	1,192.23	3,463.63			
Office Service	8,166.61	0.3	2,449.98				
Total Academic Office			10,616.59	7,348.16	69.2	92.6	90.4
OFFICE - ADMINISTRATIVE							
Total FTE Non-Acd Staff	90.43	13.0	1,175.59				
Office Service	1,175.59	0.3	352.68				
Total Admin. Office			1,528.27	1,410.04	92.3	130.0	76.3
Total Office			12,144.85	8,758.20	72.1	101.8	87.5
LIBRARY							
10% of Total Eq. Volumes	30,629.69	0.004	122.52				
Next 300,000	275,667.24	0.007	1,929.67				
Next 300,000	0.00	0.006	0.00				
Remainder	0.00	0.005	0.00				
Total Stack	306,296.94		2,052.19	1,470.47	71.7	74.2	85.3
FTE UG - Excl. Prof	0.00	0.5	0.00				
FTE UG - Professional	0.00	1.0	0.00				
FTE Grads	1,300.70	0.7	910.49				
Total Study	1,300.70		910.49	848.41	71.2	69.2	85.1
Library Support	2,962.68	0.25	740.67	1,112.51	150.2	88.8	184.0
Total Library			3,703.35	3,231.39	87.3	75.6	105.0
PHYSICAL EDUCATION/ATHLETICS							
Under 4,000 FTE Enrol.	1,300.70		2,000.00				
4,000-8,000 Enrol.	0.00						
Total FTE Students	1,300.70	0.9	1,170.63				
Total P.E./Athletics			3,170.63	0.00	0.0	76.3	0.0
MAINTENANCE SHOPS							
Total NASM Inv. (exc. 16.0)	24,937.00	0.015	374.06	926.00	247.6	94.7	281.2
STUDENT AND CENTRAL SERVICES							
Total FTE Students	1,300.70	2.0	2,601.40	3,572.87	137.3	76.5	139.3
TOTAL FORMULA AREAS							
			24,323.93	20,641.61	84.9	86.5	94.6

Table 15
Institutional Space Requirements As Measured By COU Space Standards, 1995-96

OTTAWA

	Input Measure	Space Factor	Generated Space	Inventory	% I / G	System Average	1992-93 % I / G
CLASSROOMS							
Total FTE Students	18,324.10	1.2	21,988.92	19,701.96	89.6	88.5	87.0
CLASS LABS							
Lab Contact Hours W	2,350.00	0.8	1,880.00	2,531.73			
Lab Contact Hours X	18,531.70	0.6	11,119.02	10,364.82			
Lab Contact Hours Y	9,567.10	0.5	4,783.55	4,524.88			
Lab Contact Hours Z	9,943.80	0.3	2,983.14	2,476.86			
Total Class Lab			20,765.71	19,898.29	95.8	91.3	75.5
RESEARCH							
Research Disciplines A	336.35	45.0	15,135.75	13,537.63			
Research Disciplines B	251.65	30.0	7,549.50	5,451.07			
Research Disciplines C	109.00	20.0	2,180.00	854.26			
Research Disciplines D	157.70	10.0	1,577.00	1,576.27			
Research Disciplines E	1,440.70	1.0	1,440.70	981.10			
Total Research			27,882.95	22,400.33	80.3	84.5	65.4
OFFICE - ACADEMIC							
Total FTE Faculty	945.60	13.0	12,292.80	15,516.84			
Faculty Supplement	141.84	13.0	1,843.92				
Total FTE Grade	2,715.90	4.0	10,863.60	4,634.38			
Total FTE Non-Acd Staff	489.50	13.0	6,363.50	18,776.47			
Office Service	31,363.82	0.3	9,409.15				
Total Academic Office			40,772.97	38,927.69	95.5	92.6	72.8
OFFICE - ADMINISTRATIVE							
Total FTE Non-Acd Staff	794.60	13.0	10,329.80				
Office Service	10,329.80	0.3	3,088.94				
Total Admin. Office			13,428.74	20,015.47	149.0	130.0	131.8
Total Office			54,201.71	58,943.16	108.7	101.8	87.0
LIBRARY							
10% of Total Eq. Volumes	310,499.41	0.004	1,242.00				
Next 300,000	300,000.00	0.007	2,100.00				
Next 300,000	300,000.00	0.006	1,800.00				
Remainder	2,194,494.71	0.005	10,972.47				
Total Stack	3,104,994.12		16,114.47	12,959.91	80.4	74.2	90.7
FTE UG - Excl. Prof.	13,015.40	0.5	6,507.70				
FTE UG - Professional	2,592.80	1.0	2,592.80				
FTE Grads	2,715.90	0.7	1,901.13				
Total Study	18,324.10		11,001.63	3,632.09	33.0	69.2	30.6
Library Support	27,116.10	0.25	6,779.03	4,190.52	61.8	88.8	71.6
Total Library			33,895.13	20,782.52	61.3	75.6	66.2
PHYSICAL EDUCATION/ATHLETICS							
Under 4,000 FTE Enrol.	0.00						
4,000-8,000 Enrol.	0.00						
Total FTE Students	18,324.10	0.9	16,491.69				
Total P.E./Athletics			16,491.69	6,936.32	42.1	76.3	39.3
MAINTENANCE SHOPS							
Total NASM Inv. (exc. 16.0)	217,436.90	0.015	3,261.55	983.62	30.2	94.7	30.3
STUDENT AND CENTRAL SERVICES							
Total FTE Students	18,324.10	2.0	36,648.20	19,958.11	54.5	76.5	53.9
TOTAL FORMULA AREAS			215,135.86	169,604.33	78.8	86.5	70.1

Table 16
Institutional Space Requirements As Measured By COU Space Standards, 1995-96

QUEEN'S

	Input Measure	Space Factor	Generated Space	Inventory	% I / G	System Average	1992-93 % I / G
CLASSROOMS							
Total FTE Students	14,149.40	1.2	16,979.28	18,075.80	106.5	88.5	90.1
CLASS LABS							
Lab Contact Hours W	5,111.00	0.8	4,088.80	6,150.80			
Lab Contact Hours X	28,068.50	0.8	16,841.10	15,134.40			
Lab Contact Hours Y	7,363.00	0.5	3,681.50	2,743.90			
Lab Contact Hours Z	717.50	0.3	215.25	921.20			
Total Class Lab			24,826.65	24,950.30	100.5	91.3	97.4
RESEARCH							
Research Disciplines A	440.64	45.0	19,828.80	16,440.04			
Research Disciplines B	280.58	30.0	8,417.25	7,830.80			
Research Disciplines C	79.03	20.0	1,580.60	2,515.10			
Research Disciplines D	148.54	10.0	1,485.35	917.90			
Research Disciplines E	1,164.69	1.0	1,164.69	1,019.80			
Total Research			32,476.69	28,723.64	88.4	84.5	91.8
OFFICE - ACADEMIC							
Total FTE Faculty	871.66	13.0	11,331.58	15,629.70			
Faculty Supplement	130.75	13.0	1,699.74				
Total FTE Grade	2,234.80	4.0	8,939.20	6,861.10			
Total FTE Non-Acad Staff	273.00	13.0	3,549.00	13,599.80			
Office Service	25,519.52	0.3	7,655.86				
Total Academic Office			33,175.37	36,080.60	108.8	92.6	106.8
OFFICE - ADMINISTRATIVE							
Total FTE Non-Acad Staff	616.42	13.0	8,013.46				
Office Service	8,013.46	0.3	2,404.04				
Total Admin. Office			10,417.50	13,553.40	130.1	130.0	137.4
Total Office			43,592.87	49,644.00	113.9	101.8	113.2
LIBRARY							
10% of Total Eq. Volumes	299,032.09	0.004	1,196.13				
Next 300,000	300,000.00	0.007	2,100.00				
Next 300,000	300,000.00	0.006	1,800.00				
Remainder	2,091,288.80	0.005	10,456.44				
Total Stack	2,990,320.89		15,552.57	8,525.30	54.8	74.2	61.7
FTE UG - Excl. Prof.	10,064.40	0.5	5,032.20				
FTE UG - Professional	1,850.20	1.0	1,850.20				
FTE Grads	2,234.80	0.7	1,564.36				
Total Study	14,149.40		8,446.76	10,165.30	120.3	69.2	93.8
Library Support	23,999.33	0.25	5,999.83	5,774.50	96.2	88.8	69.7
Total Library			29,999.17	24,485.10	81.6	75.6	72.5
PHYSICAL EDUCATION/ATHLETICS							
Under 4,000 FTE Enrol.	0.00						
4,000-8,000 Enrol.	0.00						
Total FTE Students	14,149.40	0.9	12,734.46				
Total P.E./Athletics			12,734.46	13,803.90	108.4	76.3	94.5
MAINTENANCE SHOPS							
Total NASM Inv. (exc. 16.0)	281,506.00	0.015	4,222.59	3,221.20	76.3	94.7	85.2
STUDENT AND CENTRAL SERVICES							
Total FTE Students	14,149.40	2.0	28,298.80	26,630.90	94.1	76.5	89.1
TOTAL FORMULA AREAS							
			193,130.51	189,514.84	98.1	86.5	93.7

Table 17
Institutional Space Requirements As Measured By COU Space Standards, 1995-96

RYERSON

	Input Measure	Space Factor	Generated Space	Inventory	% I/G	System Average	1992-93 % I/G
CLASSROOMS							
Total FTE Students	13,701.42	1.2	16,441.70	14,432.00	87.8	88.5	85.0
CLASS LABS							
Lab Contact Hours W	8,351.00	0.8	6,680.80	6,168.00			
Lab Contact Hours X	31,843.00	0.6	19,105.80	17,148.80			
Lab Contact Hours Y	3,404.00	0.5	1,702.00	1,708.50			
Lab Contact Hours Z	21,447.00	0.3	6,434.10	6,518.80			
Total Class Lab			33,922.70	31,544.10	93.0	91.3	72.2
RESEARCH							
Research Disciplines A	19.67	45.0	885.15	520.60			
Research Disciplines B	66.55	30.0	1,996.50	305.70			
Research Disciplines C	49.07	20.0	981.40	495.15			
Research Disciplines D	31.13	10.0	311.30	23.35			
Research Disciplines E	479.89	1.0	479.89	34.60			
Total Research			4,654.24	1,379.40	29.6	84.5	0.0
OFFICE - ACADEMIC							
Total FTE Faculty	646.31	13.0	8,402.03	8,470.60			
Faculty Supplement	96.95	13.0	1,260.30				
Total FTE Grads	0.00	4.0	0.00	0.00			
Total FTE Non-Acad Staff	251.96	13.0	3,275.48	4,188.20			
Office Service	12,937.81	0.3	3,881.34				
Total Academic Office			16,819.16	12,658.80	75.3	92.6	79.7
OFFICE - ADMINISTRATIVE							
Total FTE Non-Acad Staff	340.06	13.0	4,420.78				
Office Service	4,420.78	0.3	1,326.23				
Total Admin. Office			5,747.01	9,231.30	160.6	130.0	125.8
Total Office			22,566.17	21,890.10	97.0	101.8	94.4
LIBRARY							
10% of Total Eq. Volumes	53,655.41	0.004	214.62				
Next 300,000	300,000.00	0.007	2,100.00				
Next 300,000	182,898.70	0.006	1,097.39				
Remainder	0.00	0.005	0.00				
Total Stack	536,554.11		3,412.01	5,676.40	166.4	74.2	162.0
FTE UG - Excl. Prof.	13,701.42	0.5	6,850.71				
FTE UG - Professional	0.00	1.0	0.00				
FTE Grads	0.00	0.7	0.00				
Total Study	13,701.42		6,850.71	731.70	10.7	68.2	11.5
Library Support	10,262.72	0.25	2,565.68	2,024.80	78.9	88.8	83.4
Total Library			12,828.40	8,432.90	65.7	75.6	68.2
PHYSICAL EDUCATION/ATHLETICS							
Under 4,000 FTE Enrol.	0.00						
4,000-8,000 Enrol.	0.00						
Total FTE Students	13,701.42	0.9	12,331.28				
Total P.E./Athletics			12,331.28	6,270.00	50.8	76.3	53.7
MAINTENANCE SHOPS							
Total NASM Inv. (exc. 16.0)	146,110.91	0.015	2,191.66	2,023.50	92.3	94.7	128.7
STUDENT AND CENTRAL SERVICES							
Total FTE Students	13,701.42	2.0	27,402.84	18,282.20	66.7	76.5	70.0
TOTAL FORMULA AREAS			132,339.00	104,254.20	78.8	86.5	75.4

Table 18
Institutional Space Requirements As Measured By COU Space Standards, 1995-96

TORONTO (ST. GEORGE)

	Input Measure	Space Factor	Generated Space	Inventory	% I / G	System Average	1992-93 % I / G
CLASSROOMS							
Total FTE Students	31,177.32	1.2	37,412.78	40,183.64	107.4	88.5	104.0
CLASS LABS							
Lab Contact Hours W	6,560.75	0.8	5,248.60	6,169.41			
Lab Contact Hours X	42,830.39	0.8	25,698.23	38,361.92			
Lab Contact Hours Y	6,543.50	0.5	3,271.75	2,200.82			
Lab Contact Hours Z	8,048.10	0.3	2,414.43	2,068.22			
Total Class Lab			36,633.01	48,800.37	133.2	91.3	130.6
RESEARCH							
Research Disciplines A	1,256.95	45.0	56,562.75	43,613.30			
Research Disciplines B	733.82	30.0	22,014.45	25,654.89			
Research Disciplines C	308.59	20.0	6,171.80	3,813.57			
Research Disciplines D	707.53	10.0	7,075.30	2,934.00			
Research Disciplines E	2,687.51	1.0	2,687.51	448.19			
Total Research			94,511.81	76,464.95	80.9	84.5	94.3
OFFICE - ACADEMIC							
Total FTE Faculty	1,948.99	13.0	25,336.87	38,767.57			
Faculty Supplement	292.35	13.0	3,800.53				
Total FTE Grads	6,618.60	4.0	26,474.40	12,555.98			
Total FTE Non-Acd Staff	1,297.20	13.0	16,863.60	42,549.67			
Office Service	72,475.40	0.3	21,742.62				
Total Academic Office			94,218.02	94,873.22	100.7	92.6	100.3
OFFICE - ADMINISTRATIVE							
Total FTE Non-Acd Staff	1,130.33	13.0	14,694.29				
Office Service	14,694.29	0.3	4,408.29				
Total Admin. Office			19,102.58	25,145.12	131.6	130.0	119.7
Total Office			113,320.60	120,018.34	105.9	101.8	102.9
LIBRARY							
10% of Total Eq. Volumes	864,506.98	0.004	3,458.03				
Next 300,000	300,000.00	0.007	2,100.00				
Next 300,000	300,000.00	0.006	1,800.00				
Remainder	7,180,562.86	0.005	35,902.81				
Total Stack	8,645,069.84		43,260.84	36,766.90	85.0	74.2	89.3
FTE UG - Excl. Prof.	22,101.29	0.5	11,050.65				
FTE UG - Professional	2,457.43	1.0	2,457.43				
FTE Grads	6,618.60	0.7	4,633.02				
Total Study	31,177.32		18,141.10	19,346.23	106.6	69.2	109.5
Library Support	61,401.94	0.25	15,350.48	19,995.68	130.3	88.8	134.9
Total Library			76,752.42	76,108.81	99.2	75.6	103.5
PHYSICAL EDUCATION/ATHLETICS							
Under 4,000 FTE Enrol.	0.00						
4,000-8,000 Enrol.	0.00						
Total FTE Students	31,177.32	0.9	28,059.59				
Total P.E./Athletics			28,059.59	26,421.09	101.3	76.3	100.2
MAINTENANCE SHOPS							
Total NASM Inv. (exc. 16.0)	568,771.33	0.015	8,531.57	6,435.45	75.4	94.7	82.9
STUDENT AND CENTRAL SERVICES							
Total FTE Students	31,177.32	2.0	62,354.64	52,431.96	84.1	76.5	85.7
TOTAL FORMULA AREAS			457,576.43	448,864.61	98.1	86.5	100.8

Table 19
Institutional Space Requirements As Measured By COU Space Standards, 1995-96

TORONTO (ERINDALE)

	Input Measure	Space Factor	Generated Space	Inventory	% I / G	System Average	1992-93 % I / G
CLASSROOMS							
Total FTE Students	4,326.80	1.2	5,192.16	5,276.52	101.6	88.5	92.5
CLASS LABS							
Lab Contact Hours W	0.00	0.8	0.00	0.00			
Lab Contact Hours X	5,090.10	0.6	3,054.06	4,426.50			
Lab Contact Hours Y	1,849.40	0.5	924.70	1,368.53			
Lab Contact Hours Z	842.00	0.3	252.60	263.92			
Total Class Lab			4,231.36	6,058.95	143.2	91.3	185.3
RESEARCH							
Research Disciplines A	70.92	45.0	3,191.40	4,066.32			
Research Disciplines B	24.00	30.0	720.00	910.88			
Research Disciplines C	20.40	20.0	408.00	408.66			
Research Disciplines D	8.67	10.0	86.70	0.00			
Research Disciplines E	123.36	1.0	123.36	199.57			
Total Research			4,529.46	5,585.43	123.3	84.5	123.9
OFFICE - ACADEMIC							
Total FTE Faculty	205.85	13.0	2,676.05	3,267.93			
Faculty Supplement	30.88	13.0	401.41				
Total FTE Grads	60.00	4.0	240.00	1,004.68			
Total FTE Non-Acd Staff	31.80	13.0	413.40	1,171.77			
Office Service	3,730.86	0.3	1,119.26				
Total Academic Office			4,850.11	5,444.38	112.3	92.6	93.6
OFFICE - ADMINISTRATIVE							
Total FTE Non-Acd Staff	93.20	13.0	1,211.60				
Office Service	1,211.60	0.3	363.48				
Total Admin. Office			1,575.08	1,931.63	122.6	130.0	168.6
Total Office			6,425.19	7,376.01	114.8	101.8	113.8
LIBRARY							
10% of Total Eq. Volumes	36,219.84	0.004	144.88				
Next 300,000	300,000.00	0.007	2,100.00				
Next 300,000	25,978.59	0.006	155.87				
Remainder	0.00	0.005	0.00				
Total Stack	362,198.43		2,400.75	1,918.70	79.9	74.2	88.4
FTE UG - Excl. Prof.	4,266.80	0.5	2,133.40				
FTE UG - Professional	0.00	1.0	0.00				
FTE Grade	60.00	0.7	42.00				
Total Study	4,326.80		2,175.40	1,777.44	81.7	69.2	63.6
Library Support	4,576.15	0.25	1,144.04	600.24	52.5	88.8	51.6
Total Library			5,720.19	4,296.38	75.1	75.6	70.7
PHYSICAL EDUCATION/ATHLETICS							
Under 4,000 FTE Enrol	0.00						
4,000-8,000 Enrol	4,326.80		1,000.00				
Total FTE Students	4,326.80	0.9	3,894.12				
Total P.E./Athletics			4,894.12	2,380.20	48.6	76.3	45.6
MAINTENANCE SHOPS							
Total NASM Inv. (exc. 16.0)	58,155.05	0.015	872.33	678.70	77.8	94.7	77.9
STUDENT AND CENTRAL SERVICES							
Total FTE Students	4,326.80	2.0	8,653.60	7,440.28	86.0	76.5	81.0
TOTAL FORMULA AREAS							
			40,518.41	39,092.47	96.5	86.5	95.1

Table 20
Institutional Space Requirements As Measured By COU Space Standards, 1995-96

TORONTO (SCARBOROUGH)

	Input Measure	Space Factor	Generated Space	Inventory	% I / G	System Average	1992-93 % I / G
CLASSROOMS							
Total FTE Students	3,864.90	1.2	4,637.88	3,588.80	77.4	88.5	84.3
CLASS LABS							
Lab Contact Hours W	0.00	0.8	0.00	0.00			
Lab Contact Hours X	6,842.00	0.6	4,105.20	4,863.50			
Lab Contact Hours Y	529.00	0.5	264.50	541.18			
Lab Contact Hours Z	0.00	0.3	0.00	157.81			
Total Class Lab			4,369.70	5,562.29	127.3	91.3	150.5
RESEARCH							
Research Disciplines A	62.77	45.0	2,824.65	2,582.30			
Research Disciplines B	18.99	30.0	569.70	682.82			
Research Disciplines C	10.32	20.0	206.40	304.37			
Research Disciplines D	19.83	10.0	198.30	12.18			
Research Disciplines E	106.79	1.0	106.79	61.37			
Total Research			3,905.84	3,643.04	93.3	84.5	95.5
OFFICE - ACADEMIC							
Total FTE Faculty	198.70	13.0	2,583.10	2,880.38			
Faculty Supplement	29.81	13.0	387.47				
Total FTE Grade	30.00	4.0	120.00	606.99			
Total FTE Non-Acd Staff	19.50	13.0	253.50	245.08			
Office Service	3,344.07	0.3	1,003.22				
Total Academic Office			4,347.28	3,732.45	85.9	92.6	76.0
OFFICE - ADMINISTRATIVE							
Total FTE Non-Acd Staff	70.60	13.0	917.80				
Office Service	917.80	0.3	275.34				
Total Admin. Office			1,193.14	1,934.92	162.2	130.0	140.9
Total Office			5,540.42	5,667.37	102.3	101.8	93.2
LIBRARY							
10% of Total Eq. Volumes	29,543.83	0.004	118.18				
Next 300,000	265,894.43	0.007	1,861.26				
Next 300,000	0.00	0.006	0.00				
Remainder	0.00	0.005	0.00				
Total Stock	295,438.26		1,979.44	1,309.13	66.1	74.2	64.1
FTE UG - Excl. Prof.	3,834.90	0.5	1,917.45				
FTE UG - Professional	0.00	1.0	0.00				
FTE Grade	30.00	0.7	21.00				
Total Study	3,864.90		1,938.45	1,228.14	63.4	69.2	62.5
Library Support	3,917.89	0.25	979.47	657.82	67.2	88.8	70.0
Total Library			4,897.36	3,195.09	65.2	75.6	64.6
PHYSICAL EDUCATION/ATHLETICS							
Under 4,000 FTE Enrol	3,864.90		2,000.00				
4,000-8,000 Enrol	0.00						
Total FTE Students	3,864.90	0.9	3,478.41				
Total P.E./Athletics			5,478.41	3,922.99	71.6	78.3	85.2
MAINTENANCE SHOPS							
Total NASM Inv. (exc. 16.0)	42,983.32	0.015	644.75	901.99	139.9	94.7	174.6
STUDENT AND CENTRAL SERVICES							
Total FTE Students	3,864.90	2.0	7,729.80	5,216.50	67.5	76.5	80.2
TOTAL FORMULA AREAS			37,204.16	31,698.07	85.2	86.5	85.3

Table 21
Institutional Space Requirements As Measured By COU Space Standards, 1995-96

TRENT

	Input Measure	Space Factor	Generated Space	Inventory	% I / G	System Average	1992-93 % I / G
CLASSROOMS							
Total FTE Students	4,462.02	1.2	5,354.42	4,212.00	78.7	88.5	83.5
CLASS LABS							
Lab Contact Hours W	0.00	0.8	0.00	0.00			
Lab Contact Hours X	3,151.10	0.6	1,890.66	2,301.00			
Lab Contact Hours Y	1,442.10	0.5	721.05	1,261.00			
Lab Contact Hours Z	525.80	0.3	157.74	194.00			
Total Class Lab			2,769.45	3,756.00	135.6	91.3	107.0
RESEARCH							
Research Disciplines A	66.30	45.0	2,983.50	1,738.00			
Research Disciplines B	15.60	30.0	468.00	472.00			
Research Disciplines C	0.00	20.0	0.00	0.00			
Research Disciplines D	34.65	10.0	346.50	543.00			
Research Disciplines E	166.55	1.0	166.55	509.00			
Total Research			3,964.55	3,262.00	82.3	84.5	98.0
OFFICE - ACADEMIC							
Total FTE Faculty	205.20	13.0	2,667.60	3,383.00			
Faculty Supplement	30.78	13.0	400.14				
Total FTE Grads	138.80	4.0	555.20	311.00			
Total FTE Non-Acd Staff	29.00	13.0	377.00	1,359.00			
Office Service	3,999.94	0.3	1,199.98				
Total Academic Office			5,199.92	5,053.00	97.2	92.6	80.9
OFFICE - ADMINISTRATIVE							
Total FTE Non-Acd Staff	182.00	13.0	2,366.00				
Office Service	2,366.00	0.3	709.80				
Total Admin. Office			3,075.80	3,886.00	126.3	130.0	174.9
Total Office			8,275.72	8,939.00	108.0	101.8	104.3
LIBRARY							
10% of Total Eq. Volumes	80,048.19	0.004	320.19				
Next 300,000	300,000.00	0.007	2,100.00				
Next 300,000	300,000.00	0.006	1,800.00				
Remainder	120,433.67	0.005	602.17				
Total Stack	800,481.85		4,822.36	4,211.00	87.3	74.2	77.3
FTE UG - Excl. Prof.	4,323.22	0.5	2,161.61				
FTE UG - Professional	0.00	1.0	0.00				
FTE Grads	138.80	0.7	97.16				
Total Study	4,462.02		2,258.77	377.00	16.7	89.2	77.6
Library Support	7,081.13	0.25	1,770.28	2,623.00	148.2	88.8	70.3
Total Library			8,851.41	7,211.00	81.5	75.6	76.0
PHYSICAL EDUCATION/ATHLETICS							
Under 4,000 FTE Enrol	0.00						
4,000-8,000 Enrol	4,462.02		1,000.00				
Total FTE Students	4,462.02	0.9	4,015.82				
Total P.E./Athletics			5,015.82	3,356.00	66.9	76.3	69.7
MAINTENANCE SHOPS							
Total NASM Inv. (exc. 16.0)	85,592.00	0.015	1,283.88	1,083.00	84.4	94.7	120.2
STUDENT AND CENTRAL SERVICES							
Total FTE Students	4,462.02	2.0	8,924.04	7,797.00	87.4	76.5	84.7
TOTAL FORMULA AREAS							
			44,439.30	39,616.00	89.1	86.5	88.6

Table 22
Institutional Space Requirements As Measured By COU Space Standards, 1995-96

WATERLOO

	Input Measure	Space Factor	Generated Space	Inventory	% I/G	System Average	1992-93 % I/G
CLASSROOMS							
Total FTE Students	14,877.01	1.2	17,852.41	17,374.60	97.3	88.5	89.5
CLASS LABS							
Lab Contact Hours W	8,152.00	0.8	6,521.60	4,489.27			
Lab Contact Hours X	24,289.00	0.6	14,573.40	14,607.56			
Lab Contact Hours Y	1,808.00	0.5	904.00	3,120.00			
Lab Contact Hours Z	6,560.00	0.3	1,968.00	2,125.81			
Total Class Lab			23,964.00	24,342.63	101.6	91.3	92.2
RESEARCH							
Research Disciplines A	366.71	45.0	16,501.95	15,069.06			
Research Disciplines B	329.08	30.0	9,872.40	12,877.95			
Research Disciplines C	349.72	20.0	6,994.30	4,280.78			
Research Disciplines D	132.95	10.0	1,329.50	1,471.35			
Research Disciplines E	639.62	1.0	639.62	829.09			
Total Research			35,337.77	34,526.22	97.7	84.5	83.5
OFFICE - ACADEMIC							
Total FTE Faculty	860.40	13.0	11,185.21	13,340.90			
Faculty Supplement	129.06	13.0	1,677.78				
Total FTE Grade	1,722.10	4.0	6,888.40	8,781.90			
Total FTE Non-Acd Staff	527.50	13.0	6,857.50	15,118.90			
Office Service	26,608.89	0.3	7,982.67				
Total Academic Office			34,591.56	37,241.70	107.7	92.6	97.6
OFFICE - ADMINISTRATIVE							
Total FTE Non-Acd Staff	599.00	13.0	7,787.00				
Office Service	7,787.00	0.3	2,336.10				
Total Admin. Office			10,123.10	13,425.50	132.6	130.0	122.6
Total Office			44,714.66	50,667.20	113.3	101.8	103.0
LIBRARY							
10% of Total Eq. Volumes	222,392.77	0.004	889.57				
Next 300,000	300,000.00	0.007	2,100.00				
Next 300,000	300,000.00	0.006	1,800.00				
Remainder	1,401,534.93	0.005	7,007.67				
Total Stack	2,223,927.70		11,797.25	8,028.60	68.1	74.2	80.0
FTE UG - Excl. Prof.	12,913.91	0.5	6,456.95				
FTE UG - Professional	241.00	1.0	241.00				
FTE Grade	1,722.10	0.7	1,205.47				
Total Study	14,877.01		7,903.42	5,746.20	72.7	69.2	69.4
Library Support	19,700.67	0.25	4,925.17	3,507.20	71.2	68.8	79.5
Total Library			24,625.84	17,282.00	70.2	75.6	76.0
PHYSICAL EDUCATION/ATHLETICS							
Under 4,000 FTE Enrol	0.00						
4,000-8,000 Enrol	0.00						
Total FTE Students	14,877.01	0.9	13,389.31				
Total P.E./Athletics			13,389.31	11,712.50	87.5	76.3	65.4
MAINTENANCE SHOPS							
Total NASM Inv. (exc. 16.0)	293,004.75	0.015	4,395.07	5,569.70	126.7	94.7	129.3
STUDENT AND CENTRAL SERVICES							
Total FTE Students	14,877.01	2.0	29,754.02	33,517.10	112.6	76.5	92.8
TOTAL FORMULA AREAS							
			194,033.08	194,993.96	100.5	86.5	90.0

Table 23
Institutional Space Requirements As Measured By COU Space Standards, 1995-96

WESTERN

	Input Measure	Space Factor	Generated Space	Inventory	% I / G	System Average	1992-93 % I / G
CLASSROOMS							
Total FTE Students	23,128.50	1.2	27,754.20	26,820.00	96.6	88.5	87.8
CLASS LABS							
Lab Contact Hours W	3,898.00	0.8	3,118.40	2,572.07			
Lab Contact Hours X	38,935.00	0.6	23,361.00	20,405.75			
Lab Contact Hours Y	7,410.00	0.5	3,705.00	5,742.87			
Lab Contact Hours Z	3,607.00	0.3	1,082.10	1,525.73			
Total Class Lab			31,266.50	30,246.42	96.7	91.3	97.3
RESEARCH							
Research Disciplines A	511.26	45.0	23,006.70	19,292.80			
Research Disciplines B	342.13	30.0	10,263.90	8,835.59			
Research Disciplines C	160.93	20.0	3,218.60	2,037.13			
Research Disciplines D	233.43	10.0	2,334.25	2,415.73			
Research Disciplines E	1,255.59	1.0	1,255.59	560.45			
Total Research			40,079.04	33,141.70	82.7	84.5	91.0
OFFICE - ACADEMIC							
Total FTE Faculty	1,168.15	13.0	15,185.95	20,315.00			
Faculty Supplement	175.22	13.0	2,277.89				
Total FTE Grads	2,399.70	4.0	9,598.80	5,435.00			
Total FTE Non-Acd Staff	1,181.10	13.0	15,354.30	18,951.00			
Office Service	42,416.94	0.3	12,725.08				
Total Academic Office			55,142.03	44,701.00	81.1	92.6	90.9
OFFICE - ADMINISTRATIVE							
Total FTE Non-Acd Staff	1,237.80	13.0	16,091.40				
Office Service	16,091.40	0.3	4,827.42				
Total Admin. Office			20,918.82	23,381.00	111.8	130.0	89.6
Total Office			76,060.85	68,082.00	89.5	101.8	90.5
LIBRARY							
10% of Total Eq. Volumes	373,070.76	0.004	1,492.28				
Next 300,000	300,000.00	0.007	2,100.00				
Next 300,000	300,000.00	0.006	1,800.00				
Remainder	2,757,636.88	0.005	13,788.18				
Total Stack	3,730,707.64		19,180.47	15,722.00	82.0	74.2	75.2
FTE UG - Excl. Prof.	18,815.40	0.5	9,407.70				
FTE UG - Professional	1,913.40	1.0	1,913.40				
FTE Grads	2,369.70	0.7	1,679.79				
Total Study	23,128.50		13,000.89	10,029.00	77.1	69.2	72.9
Library Support	32,181.36	0.25	8,045.34	6,624.00	82.3	88.8	76.9
Total Library			40,226.70	32,375.00	80.5	75.6	74.8
PHYSICAL EDUCATION/ATHLETICS							
Under 4,000 FTE Enrol.	0.00						
4,000-8,000 Enrol.	0.00						
Total FTE Students	23,128.50	0.9	20,815.65				
Total P.E./Athletics			20,815.65	15,568.00	74.8	76.3	67.0
MAINTENANCE SHOPS							
Total NASM Inv. (exc. 16.0)	341,767.00	0.015	5,126.51	5,696.00	111.1	94.7	113.1
STUDENT AND CENTRAL SERVICES							
Total FTE Students	23,128.50	2.0	46,257.00	34,775.00	75.2	76.5	68.5
TOTAL FORMULA AREAS							
			287,586.44	248,704.12	85.8	86.5	83.6

Table 24
Institutional Space Requirements As Measured By COU Space Standards, 1995-96

WILFRID LAURIER

	Input Measure	Space Factor	Generated Space	Inventory	% I / G	System Average	1992-93 % I / G
CLASSROOMS							
Total FTE Students	6,080.00	1.2	7,296.00	6,620.00	90.7	88.5	78.9
CLASS LABS							
Lab Contact Hours W	0.00	0.8	0.00	0.00			
Lab Contact Hours X	2,888.00	0.6	1,732.80	2,463.00			
Lab Contact Hours Y	3,160.00	0.5	1,580.00	1,026.00			
Lab Contact Hours Z	1,054.00	0.3	316.20	730.00			
Total Class Lab			3,629.00	4,219.00	116.3	91.3	74.9
RESEARCH							
Research Disciplines A	23.00	45.0	1,035.00	888.00			
Research Disciplines B	38.00	30.0	1,140.00	690.00			
Research Disciplines C	22.50	20.0	450.00	62.00			
Research Disciplines D	28.00	10.0	280.00	155.00			
Research Disciplines E	466.50	1.0	466.50	516.00			
Total Research			3,371.50	2,311.00	68.5	84.5	23.6
OFFICE - ACADEMIC							
Total FTE Faculty	297.00	13.0	3,861.00	4,288.00			
Faculty Supplement	44.55	13.0	579.15				
Total FTE Grads	562.00	4.0	2,248.00	592.00			
Total FTE Non-Acd Staff	89.00	13.0	1,157.00	2,719.00			
Office Service	7,845.15	0.3	2,353.55				
Total Academic Office			10,198.70	7,599.00	74.5	92.6	59.5
OFFICE - ADMINISTRATIVE							
Total FTE Non-Acd Staff	405.00	13.0	5,265.00				
Office Service	5,265.00	0.3	1,579.50				
Total Admin. Office			6,844.50	7,023.00	102.6	130.0	79.5
Total Office			17,043.20	14,622.00	85.8	101.8	67.1
LIBRARY							
10% of Total Eq. Volumes	95,339.06	0.004	381.36				
Next 300,000	300,000.00	0.007	2,100.00				
Next 300,000	300,000.00	0.006	1,800.00				
Remainder	258,051.58	0.005	1,290.26				
Total Stack	953,390.65		5,571.61	3,517.00	63.1	74.2	47.2
FTE UG - Excl. Prof.	5,518.00	0.5	2,759.00				
FTE UG - Professional	0.00	1.0	0.00				
FTE Grads	562.00	0.7	393.40				
Total Study	6,080.00		3,152.40	2,443.00	77.5	69.2	51.3
Library Support	8,724.01	0.25	2,181.00	1,252.00	57.4	88.8	40.9
Total Library			10,905.02	7,212.00	66.1	75.6	47.0
PHYSICAL EDUCATION/ATHLETICS							
Under 4,000 FTE Enrol.	0.00						
4,000-8,000 Enrol.	6,080.00		1,000.00				
Total FTE Students	6,080.00	0.9	5,472.00				
Total P.E./Athletics			6,472.00	6,382.00	98.6	76.3	86.6
MAINTENANCE SHOPS							
Total NASM Inv. (exc. 16.0)	80,172.00	0.015	1,202.58	1,298.00	107.9	94.7	96.0
STUDENT AND CENTRAL SERVICES							
Total FTE Students	6,080.00	2.0	12,160.00	12,250.00	100.7	76.5	78.8
TOTAL FORMULA AREAS			62,079.29	54,914.00	88.5	86.5	66.1

Table 25
Institutional Space Requirements As Measured By COU Space Standards, 1995-96

WINDSOR

	Input Measure	Space Factor	Generated Space	Inventory	% I/G	System Average	1992-93 % I/G
CLASSROOMS							
Total FTE Students	11,115.82	1.2	13,338.98	9,809.29	73.5	88.5	67.7
CLASS LABS							
Lab Contact Hours W	2,875.50	0.8	2,300.40	2,702.77			
Lab Contact Hours X	13,885.50	0.6	8,331.30	8,856.59			
Lab Contact Hours Y	10,359.00	0.5	5,179.50	1,860.74			
Lab Contact Hours Z	3,731.00	0.3	1,119.30	1,487.38			
Total Class Lab			16,930.50	14,907.48	88.1	91.3	109.4
RESEARCH							
Research Disciplines A	115.12	45.0	5,180.40	5,973.69			
Research Disciplines B	163.74	30.0	4,912.20	3,155.17			
Research Disciplines C	24.60	20.0	492.00	578.09			
Research Disciplines D	74.95	10.0	749.50	259.10			
Research Disciplines E	510.12	1.0	510.12	467.74			
Total Research			11,844.22	10,433.79	88.1	84.5	88.9
OFFICE - ACADEMIC							
Total FTE Faculty	489.03	13.0	6,357.39	9,001.64			
Faculty Supplement	73.35	13.0	953.61				
Total FTE Grads	733.10	4.0	2,932.40	2,372.98			
Total FTE Non-Acd Staff	209.69	13.0	2,725.97	5,332.44			
Office Service	12,969.37	0.3	3,890.81				
Total Academic Office			16,860.18	16,707.06	99.1	92.6	86.7
OFFICE - ADMINISTRATIVE							
Total FTE Non-Acd Staff	291.36	13.0	3,787.68				
Office Service	3,787.68	0.3	1,136.30				
Total Admin. Office			4,923.98	7,902.70	160.5	130.0	139.6
Total Office			21,784.16	24,609.76	113.0	101.8	98.3
LIBRARY							
10% of Total Eq. Volumes	231,277.89	0.004	925.11				
Next 300,000	300,000.00	0.007	2,100.00				
Next 300,000	300,000.00	0.006	1,800.00				
Remainder	1,481,500.99	0.005	7,407.50				
Total Stack	2,312,778.88		12,232.62	6,443.13	52.7	74.2	50.3
FTE UG - Excl. Prof.	8,525.82	0.5	4,262.91				
FTE UG - Professional	1,856.90	1.0	1,856.90				
FTE Grads	733.10	0.7	513.17				
Total Study	11,115.82		6,632.98	5,327.35	80.3	69.2	78.9
Library Support	18,865.60	0.25	4,716.40	3,285.78	69.7	88.8	66.5
Total Library			23,582.00	15,056.26	63.8	75.6	61.2
PHYSICAL EDUCATION/ATHLETICS							
Under 4,000 FTE Enrol.	0.00						
4,000-8,000 Enrol.	0.00						
Total FTE Students	11,115.82	0.9	10,004.24				
Total P.E./Athletics			10,004.24	10,309.79	103.1	76.3	91.5
MAINTENANCE SHOPS							
Total NASM Inv. (exc. 16.0)	138,615.50	0.015	2,079.23	1,884.87	90.7	94.7	92.1
STUDENT AND CENTRAL SERVICES							
Total FTE Students	11,115.82	2.0	22,231.64	17,726.55	79.7	76.5	43.7
TOTAL FORMULA AREAS							
			121,794.97	104,737.79	86.0	86.5	76.2

Table 26
Institutional Space Requirements As Measured By COU Space Standards, 1995-96

YORK (MAIN)

	Input Measure	Space Factor	Generated Space	Inventory	% I / G	System Average	1992-93 % I / G
CLASSROOMS							
Total FTE Students	26,734.00	1.2	32,080.80	21,673.31	67.6	88.5	67.1
CLASS LABS							
Lab Contact Hours W	0.00	0.8	0.00	0.00			
Lab Contact Hours X	27,915.00	0.6	16,749.00	12,701.60			
Lab Contact Hours Y	14,163.50	0.5	7,081.75	615.71			
Lab Contact Hours Z	7,715.00	0.3	2,314.50	3,068.23			
Total Class Lab			26,145.25	16,385.54	62.7	91.3	67.8
RESEARCH							
Research Disciplines A	245.47	45.0	11,046.15	7,118.74			
Research Disciplines B	198.74	30.0	5,962.20	1,869.43			
Research Disciplines C	37.72	20.0	754.40	11.52			
Research Disciplines D	160.84	10.0	1,608.40	1,022.50			
Research Disciplines E	2,143.11	1.0	2,143.11	782.57			
Total Research			21,514.26	10,804.76	50.2	84.5	54.4
OFFICE - ACADEMIC							
Total FTE Faculty	1,421.00	13.0	18,473.00	17,715.89			
Faculty Supplement	213.15	13.0	2,770.95				
Total FTE Grads	2,580.00	4.0	10,320.00	4,796.66			
Total FTE Non-Acd Staff	265.00	13.0	3,445.00	14,001.33			
Office Service	35,008.95	0.3	10,502.69				
Total Academic Office			45,511.64	36,513.88	80.2	92.6	82.7
OFFICE - ADMINISTRATIVE							
Total FTE Non-Acd Staff	1,194.00	13.0	15,522.00				
Office Service	15,522.00	0.3	4,656.60				
Total Admin. Office			20,178.60	23,518.13	116.5	130.0	106.2
Total Office			65,690.24	60,032.01	91.4	101.8	90.0
LIBRARY							
10% of Total Eq. Volumes	298,654.71	0.004	1,194.62				
Next 300,000	300,000.00	0.007	2,100.00				
Next 300,000	300,000.00	0.006	1,800.00				
Remainder	2,087,892.38	0.005	10,439.46				
Total Stack	2,986,547.09		15,534.08	9,365.03	60.3	74.2	80.5
FTE UG - Excl. Prof.	21,868.00	0.5	10,934.00				
FTE UG - Professional	2,286.00	1.0	2,286.00				
FTE Grads	2,580.00	0.7	1,806.00				
Total Study	26,734.00		15,026.00	6,912.72	46.0	69.2	33.5
Library Support	30,560.08	0.25	7,640.02	6,996.24	91.6	88.8	111.8
Total Library			38,200.10	23,273.99	60.9	75.6	64.8
PHYSICAL EDUCATION/ATHLETICS							
Under 4,000 FTE Enrol.	0.00						
4,000-8,000 Enrol.	0.00						
Total FTE Students	26,734.00	0.9	24,060.60				
Total P.E./Athletics			24,060.60	12,824.47	53.3	76.3	31.7
MAINTENANCE SHOPS							
Total NASM Inv. (exc. 16.0)	268,641.80	0.015	4,029.63	2,670.52	66.3	94.7	55.8
STUDENT AND CENTRAL SERVICES							
Total FTE Students	26,734.00	2.0	53,468.00	28,659.12	53.6	76.5	51.0
TOTAL FORMULA AREAS							
			265,188.87	176,323.72	66.5	86.5	64.8

Table 27
Institutional Space Requirements As Measured By COU Space Standards, 1995-96

YORK (GLENDON)

	Input Measure	Space Factor	Generated Space	Inventory	% I / G	System Average	1992-93 % I / G
CLASSROOMS							
Total FTE Students	1,715.00	1.2	2,058.00	1,942.78	94.4	88.5	84.7
CLASS LABS							
Lab Contact Hours W	0.00	0.8	0.00	0.00			
Lab Contact Hours X	657.00	0.6	394.20	420.57			
Lab Contact Hours Y	0.00	0.5	0.00	40.42			
Lab Contact Hours Z	601.00	0.3	180.30	337.37			
Total Class Lab			574.50	798.36	139.0	91.3	313.7
RESEARCH							
Research Disciplines A	6.21	45.0	279.45	0.00			
Research Disciplines B	9.83	30.0	294.90	150.45			
Research Disciplines C	0.00	20.0	0.00	0.00			
Research Disciplines D	4.41	10.0	44.10	0.00			
Research Disciplines E	118.10	1.0	118.10	0.00			
Total Research			736.55	150.45	20.4	84.5	20.2
OFFICE - ACADEMIC							
Total FTE Faculty	129.00	13.0	1,677.00	1,947.43			
Faculty Supplement	19.35	13.0	251.55				
Total FTE Grads	17.00	4.0	68.00	0.00			
Total FTE Non-Acd Staff	20.00	13.0	260.00	402.98			
Office Service	2,256.55	0.3	676.97				
Total Academic Office			2,933.52	2,350.42	80.1	92.6	72.9
OFFICE - ADMINISTRATIVE							
Total FTE Non-Acd Staff	15.00	13.0	195.00				
Office Service	195.00	0.3	58.50				
Total Admin. Office			253.50	2,128.82	839.8	130.0	603.8
Total Office			3,187.02	4,479.24	140.5	101.8	114.5
LIBRARY							
10% of Total Eq. Volumes	37,582.64	0.004	150.33				
Next 300,000	300,000.00	0.007	2,100.00				
Next 300,000	38,243.75	0.006	229.46				
Remainder	0.00	0.005	0.00				
Total Stack	375,826.39		2,479.79	955.41	38.5	74.2	47.2
FTE UG - Excl. Prof.	1,698.00	0.5	849.00				
FTE UG - Professional	0.00	1.0	0.00				
FTE Grads	17.00	0.7	11.90				
Total Study	1,715.00		860.90	616.59	71.6	69.2	71.0
Library Support	3,340.69	0.25	835.17	297.77	35.7	88.8	42.8
Total Library			4,175.87	1,869.77	44.8	75.6	52.5
PHYSICAL EDUCATION/ATHLETICS							
Under 4,000 FTE Enrol.	1,715.00		2,000.00				
4,000-8,000 Enrol.	0.00						
Total FTE Students	1,715.00	0.9	1,543.50				
Total P.E./Athletics			3,543.50	2,936.52	82.9	76.3	82.2
MAINTENANCE SHOPS							
Total NASM Inv. (exc. 16.0)	23,844.36	0.015	357.67	451.62	126.3	94.7	150.8
STUDENT AND CENTRAL SERVICES							
Total FTE Students	1,715.00	2.0	3,430.00	3,673.32	107.1	76.5	99.3
TOTAL FORMULA AREAS							
			18,063.10	16,302.06	90.3	86.5	90.2

SECTION 4
SUMMARY TABLES



Table 28

Classroom Facilities: Generated Space and Inventory, 1995-96

	FTE Students	Generated Space	Inventory NASM	Inventory/ FTE Student	% I/G	1992-93 % I/G
Brock	7,870.6	9,445	6,083	0.8	64.4	65.7
Carleton	15,210.5	18,253	12,515	0.8	68.6	67.4
Guelph	11,743.0	14,092	12,008	1.0	85.2	73.4
Lakehead	6,178.5	7,414	6,166	1.0	83.2	65.6
Laurentian	5,988.9	7,187	6,077	1.0	84.6	74.2
Laurentian (Algo)	851.2	781	834	1.3	106.8	100.7
Laurentian (Hear)	324.0	389	991	3.1	254.8	807.5
McMaster	14,549.3	17,459	14,629	1.0	83.8	78.5
Nipissing	1,868.8	2,243	1,627	0.9	72.5	80.6
OCA	1,755.7	2,107	1,524	0.9	72.3	27.4
OISE	1,300.7	1,561	3,913	3.0	250.7	223.2
Ottawa	18,324.1	21,989	19,702	1.1	89.6	87.0
Queen's	14,149.4	16,979	18,076	1.3	106.5	90.1
Ryerson	13,701.4	16,442	14,432	1.1	87.8	85.0
Toronto (St. Grge)	31,177.3	37,413	40,184	1.3	107.4	104.0
Toronto (Erin)	4,326.8	5,192	5,277	1.2	101.6	92.5
Toronto (Scar)	3,864.9	4,638	3,589	0.9	77.4	64.3
Trent	4,462.0	5,354	4,212	0.9	78.7	83.5
Waterloo	14,877.0	17,852	17,375	1.2	97.3	89.5
Western	23,128.5	27,754	26,820	1.2	96.6	87.8
Wilfrid Laurier	6,080.0	7,296	6,620	1.1	90.7	78.9
Windsor	11,115.8	13,339	9,809	0.9	73.5	67.7
York (Main)	26,734.0	32,081	21,673	0.8	67.6	67.1
York (Glen)	1,715.0	2,058	1,943	1.1	94.4	84.7
Total	241,097.5	289,317	256,078	1.1	88.5	83.0

Input Measure: Total FTE Students (as defined in Appendix C).

Space Factor: 1.2 NASM

System Average: 1.06 NASM per FTE Student.
(Actual Classroom inventory divided by Total FTE Students.)

Table 29
Class Lab Space: Generated Space and Inventory, 1995-96

	Class Lab Hours	Generated Space	Inventory NASM	% I/G	1992-93 % I/G
Brock	20,676.0	10,389	5,618	54.1	50.0
Carleton	27,507.5	16,902	18,256	108.0	100.4
Guelph	58,987.7	36,102	23,462	65.0	59.3
Lakehead	21,056.0	11,621	11,439	98.4	90.9
Laurentian	10,457.5	6,003	6,762	112.6	110.7
Laurentian (Algo)	967.0	341	583	171.3	86.2
Laurentian (Hear)	1,197.0	461	461	100.0	261.3
McMaster	39,208.9	22,031	19,249	87.4	72.1
Nipissing	14,233.0	7,062	1,815	25.7	26.5
OCA	28,378.5	17,027	7,594	44.6	n/a
OISE		not applicable			
Ottawa	40,392.6	20,766	19,898	95.8	75.5
Queen's	41,260.0	24,827	24,950	100.5	97.4
Ryerson	65,045.0	33,923	31,544	93.0	72.2
Toronto (St. Grge)	63,982.7	36,633	48,800	133.2	130.6
Toronto (Erin)	7,781.5	4,231	6,059	143.2	185.3
Toronto (Scar)	7,371.0	4,370	5,562	127.3	150.5
Trent	5,119.0	2,769	3,756	135.6	107.0
Waterloo	40,799.0	23,964	24,343	101.6	92.2
Western	53,850.0	31,267	30,246	96.7	97.3
Wilfrid Laurier	7,102.0	3,629	4,219	116.3	74.9
Windsor	30,851.0	16,931	14,907	88.1	109.4
York (Main)	49,793.5	26,145	16,386	62.7	67.8
York (Glen)	1,258.0	575	798	139.0	313.7
Total	637,274.4	357,967	326,708	91.3	87.8

Input Measure: Total Laboratory Weekly Student Contact Hours (as defined in Appendix C) for programs in Groups W, X, Y, and Z (as defined in Appendix D).

System Average,
Space Factor:

	System Average	Space Factor
Group W:	0.74	0.80
Group X:	0.56	0.60
Group Y:	0.36	0.50
Group Z:	0.33	0.30

Actual Class Lab inventory divided by Class Lab Hours (weighted average as defined in Input Measure)

Table 30

Lab - Research Facilities: Generated Space and Inventory, 1995-96

	Research Staff	Generated Space	Inventory NASM	Inventory/ Research Staff	% I/G	1992-93 % I/G
Brock	505.4	5,206	4,729	9.4	90.8	81.8
Carleton	1,683.0	19,778	11,098	6.6	56.1	49.9
Guelph	1,615.1	40,780	47,722	29.5	117.0	108.6
Lakehead	458.9	6,658	4,297	9.4	64.5	62.5
Laurentian	485.7	6,427	4,895	10.1	76.2	86.8
Laurentian (Algo)	47.7	383	not applicable			n/a
Laurentian (Hear)	20.0	160	not applicable			n/a
McMaster	1,853.9	37,418	35,056	18.9	93.7	96.3
Nipissing	108.9	470	not applicable			n/a
OCA	107.44	588	not applicable			n/a
OISE	768.9	769	240	0.3	31.2	15.3
Ottawa	2,295.4	27,883	22,400	9.8	80.3	65.4
Queen's	2,113.5	32,477	28,724	13.6	88.4	91.8
Ryerson	646.3	4,654	1,379	2.1	29.6	n/a
Toronto (St. Grge)	5,694.4	94,512	76,465	13.4	80.9	94.3
Toronto (Erin)	247.4	4,529	5,585	22.6	123.3	123.9
Toronto (Scar)	218.7	3,906	3,643	16.7	93.3	95.5
Trent	283.1	3,965	3,262	11.5	82.3	98.0
Waterloo	1,818.1	35,338	34,528	19.0	97.7	83.5
Western	2,503.3	40,079	33,142	13.2	82.7	91.0
Wilfrid Laurier	578.0	3,372	2,311	4.0	68.5	23.6
Windsor	888.5	11,844	10,434	11.7	88.1	88.9
York (Main)	2,785.9	21,514	10,805	3.9	50.2	54.4
York (Glen)	138.6	737	150	1.1	20.4	20.2
Total	27,866.0	403,446	340,867	12.2	84.5	85.7

Input Measure: Research Staff is calculated by summing the total of FTE Faculty plus one-half Graduate Student plus one-half Other Research Appointments in Research Disciplines as defined in Appendix C).

System Average, Space Factor	System Average	Space Factor
Group A:	39.4	45
Group B:	27.2	30
Group C:	11.9	20
Group D:	8.3	10
Group E:	0.6	1

Actual Research space divided by Research Staff (weighted average as defined in Input Measure).

Table 31

**Academic Departmental Office Space and Related Space:
Generated Space and Inventory, 1995-96**

	FTE Faculty	Generated Space	Inventory NASM	% I/G	1992-93 % I/G
Brock	345.8	10,726	7,348	68.5	64.6
Carleton	705.1	28,522	26,888	94.3	82.2
Guelph	793.8	27,586	30,174	109.4	104.0
Lakehead	315.3	8,783	6,651	75.7	75.0
Laurentian	346.7	8,948	8,508	95.1	102.0
Laurentian (Algo)	47.7	1,232	429	34.9	32.0
Laurentian (Hear)	20.0	676	332	49.2	44.7
McMaster	865.9	33,528	31,651	94.4	86.9
Nipissing	96.0	2,169	1,030	47.5	50.9
OCA	107.44	2,412	803	33.3	23.7
OISE	118.5	10,617	7,348	69.2	90.4
Ottawa	945.6	40,773	38,928	95.5	72.8
Queen's	871.7	33,175	36,091	108.8	106.8
Ryerson	646.3	16,819	12,659	75.3	79.7
Toronto (St. Grge)	1,949.0	94,218	94,873	100.7	100.3
Toronto (Erin)	205.9	4,850	5,444	112.3	93.6
Toronto (Scar)	198.7	4,347	3,732	85.9	76.0
Trent	205.2	5,200	5,053	97.2	80.9
Waterloo	860.4	34,592	37,242	107.7	97.6
Western	1,168.2	55,142	44,701	81.1	90.9
Wilfrid Laurier	297.0	10,199	7,599	74.5	59.5
Windsor	489.0	16,860	16,707	99.1	86.7
York (Main)	1,421.0	45,512	36,514	80.2	82.7
York (Glen)	129.0	2,934	2,350	80.1	72.9
Total	13,149.2	499,819	463,055	92.6	88.8

Input Measure:	Total FTE Faculty (as defined in Appendix C) plus 15%, total FTE Non-Academic Staff requiring offices, and total FTE Graduate Students.
Space Factor:	13 NASM per FTE Faculty and FTE Non-Academic Staff, Faculty Supplement = 15% of FTE Faculty, 4 NASM per FTE Graduate Student, plus 30% allowance for office support space.
System Average:	35.2 NASM per FTE Faculty. (Actual Space for Faculty and Graduate Students (including service space) divided by Total FTE Faculty.)

Table 31A

Graduate Student Office Space:
Generated Space and Inventory, 1995-96

	Graduate Students	Generated Space	Inventory NASM	% I/G
Brock	299.1	1,196	666	55.7
Carleton	1,916.7	7,667	5,448	71.1
Guelph	1,562.6	6,250	5,506	88.1
Lakehead	273.2	1,093	767	70.2
Laurentian	216.9	867	365	42.1
Laurentian (Algo)		not applicable		
Laurentian (Hear)		not applicable		
McMaster	1,766.1	7,064	4,887	69.2
Nipissing	25.8	103	0	0.0
OCA	0.00	0	0	
OISE	1,300.7	5,203	1,870	35.9
Ottawa	2,715.9	10,864	4,634	42.7
Queen's	2,234.8	8,939	6,861	76.8
Ryerson		not applicable		
Toronto (St. Grge)	6,618.6	26,474	12,556	47.4
Toronto (Erin)	60.0	240	1,005	418.6
Toronto (Scar)	30.0	120	607	505.8
Trent	138.8	555	311	56.0
Waterloo	1,722.1	6,888	8,782	127.5
Western	2,399.7	9,599	5,435	56.6
Wilfrid Laurier	562.0	2,248	592	26.3
Windsor	733.1	2,932	2,373	80.9
York (Main)	2,580.0	10,320	4,797	46.5
York (Glen)	17.0	68	0	0.0
Total	27,173.1	108,692	67,461	62.1

Input Measure: Total FTE Graduate Students.

Space Factor: 4 NASM

System Average: 2.5 NASM per Graduate Student
(Actual Space for Graduate Students (including service space) divi
by Total Graduate Students.)

Table 32

Administrative Office Space: Generated Space and Inventory, 1995-96

	FTE Non-Acad. Office Staff	Space Generated	Inventory NASM	Inventory/ Office Staff	% I/G	1992-93 % I/G
Brock	273.0	4,614	4,048	14.8	87.7	75.6
Carleton	493.9	8,346	8,761	17.7	105.0	94.3
Guelph	561.4	9,488	19,848	35.4	209.2	190.1
Lakehead	241.5	4,081	3,432	14.2	84.1	82.7
Laurentian	186.0	3,143	5,153	27.7	163.9	145.3
Laurentian (Alg)	23.0	389	469	20.4	120.8	126.3
Laurentian (Hea)	10.0	169	274	27.4	162.4	116.0
McMaster	665.4	11,245	12,749	19.2	113.4	101.1
Nipissing	57.5	972	899	15.6	92.5	93.3
OCA	40.1	678	1,046	26.1	154.3	104.3
OISE	90.4	1,528	1,410	15.6	92.3	76.3
Ottawa	794.6	13,429	20,015	25.2	149.0	131.8
Queen's	616.4	10,417	13,553	22.0	130.1	137.4
Ryerson	340.1	5,747	9,231	27.1	160.6	125.8
Toronto (St. Grge)	1,130.3	19,103	25,145	22.2	131.6	119.7
Toronto (Erin)	93.2	1,575	1,932	20.7	122.6	168.6
Toronto (Scar)	70.6	1,193	1,935	27.4	162.2	140.9
Trent	182.0	3,076	3,886	21.4	126.3	174.9
Waterloo	599.0	10,123	13,426	22.4	132.6	122.6
Western	1,237.8	20,919	23,381	18.9	111.8	89.6
Wilfrid Laurier	405.0	6,845	7,023	17.3	102.6	79.5
Windsor	291.4	4,924	7,903	27.1	160.5	139.6
York (Main)	1,194.0	20,179	23,518	19.7	116.5	106.2
York (Glen)	15.0	254	2,129	141.9	839.8	603.8
Total	9,611.6	162,436	211,166	22.0	130.0	116.1

Input Measure:	Total FTE Non-Academic Office Staff requiring offices.
Space Factor:	13 NASM for FTE Non-Academic Office Staff, plus 30% allowance for office support space.
System Average	21.9 NASM per Non-Academic Office Staff (Total Actual Non-Academic Office Staff Space (including service space) divided by Non-Academic Staff.)

Table 33

Library Space: Generated Space and Inventory, 1995-96

	FTE Students	Generated Space	Inventory NASM	Inventory / FTE Students	% I/G	1992-93 % I/G
Brock	7,870.6	12,037	6,944	0.9	57.7	55.7
Carleton	15,210.5	23,175	15,370	1.0	66.3	69.9
Guelph	11,743.0	22,536	15,163	1.3	67.3	62.7
Lakehead	6,178.5	9,971	6,062	1.0	60.8	55.6
Laurentian	5,968.9	12,026	9,113	1.5	75.8	96.2
Laurentian (Algo)	651.2	2,138	2,242	3.4	104.8	142.2
Laurentian (Hear)	324.0	638	446	1.4	69.9	101.5
McMaster	14,549.3	27,205	24,558	1.7	90.3	80.3
Nipissing	1,868.8	2,939	1,779	1.0	60.5	43.9
OCA	1,755.7	1,609	493	0.3	30.7	28.1
OISE	1,300.7	3,703	3,231	2.5	87.3	105.0
Ottawa	18,324.1	33,895	20,783	1.1	61.3	66.2
Queen's	14,149.4	29,999	24,465	1.7	81.6	72.5
Ryerson	13,701.4	12,828	8,433	0.6	65.7	68.2
Toronto (St. Grge)	31,177.3	76,752	76,109	2.4	99.2	103.5
Toronto (Erin)	4,326.8	5,720	4,296	1.0	75.1	70.7
Toronto (Scar)	3,864.9	4,897	3,195	0.8	65.2	64.6
Trent	4,462.0	8,851	7,211	1.6	81.5	76.0
Waterloo	14,877.0	24,626	17,282	1.2	70.2	76.0
Western	23,128.5	40,227	32,375	1.4	80.5	74.8
Wilfrid Laurier	6,080.0	10,905	7,212	1.2	66.1	47.0
Windsor	11,115.8	23,582	15,056	1.4	63.8	61.2
York (Main)	26,734.0	38,200	23,274	0.9	60.9	64.8
York (Glen)	1,715.0	4,176	1,870	1.1	44.8	52.5
Total	241,097.5	432,638	326,963	1.4	75.6	75.1

Inout Measure: Total FTE Students and Total Equivalent Volumes

Space Factor: The range is between 0.5 NASM and 1.0 NASM for FTE Students, from 0.004 NASM to 0.007 NASM for Equivalent Volumes, plus 25% allowance for service space.

System Average: 1.4 NASM per FTE Student
(Total Actual Library space (stack space for total volumes, study space for FTE undergraduates, professional undergraduates & graduates, and service space for the number of volumes and students) divided by Total FTE Students.)

Table 34

Physical Education / Athletics Space: Generated Space and Inventory, 1995-96

	FTE Students	Generated Space	Inventory NASM	Inventory / FTE Students	% I/G	1992-93 % I/G
Brock	7,870.6	8,084	6,843	0.9	84.6	94.6
Carleton	15,210.5	13,689	9,453	0.6	69.1	63.3
Guelph	11,743.0	10,569	15,990	1.4	151.3	123.5
Lakehead	6,178.5	6,561	4,538	0.7	69.2	87.7
Laurentian	5,988.9	6,390	6,139	1.0	96.1	82.8
Laurentian (Algo)	651.2	2,586	3,282	5.0	126.9	125.2
Laurentian (Hear)	324.0	2,292	710	2.2	31.0	33.7
McMaster	14,549.3	13,094	8,344	0.6	63.7	56.0
Nipissing	1,868.8	3,682	688	0.4	18.7	20.0
OCA	1,755.7	3,580	not applicable			
OISE	1,300.7	3,171	not applicable			
Ottawa	18,324.1	16,492	6,936	0.4	42.1	39.3
Queen's	14,149.4	12,734	13,804	1.0	108.4	94.5
Ryerson	13,701.4	12,331	6,270	0.5	50.8	53.7
Toronto (St. Grge)	31,177.3	28,060	28,421	0.9	101.3	100.2
Toronto (Erin)	4,326.8	4,894	2,380	0.6	48.6	45.6
Toronto (Scar)	3,864.9	5,478	3,923	1.0	71.6	85.2
Trent	4,462.0	5,016	3,356	0.8	66.9	69.7
Waterloo	14,877.0	13,389	11,713	0.8	87.5	65.4
Western	23,128.5	20,816	15,568	0.7	74.8	67.0
Wilfrid Laurier	6,080.0	6,472	6,382	1.0	98.6	86.6
Windsor	11,115.8	10,004	10,310	0.9	103.1	91.5
York (Main)	26,734.0	24,061	12,824	0.5	53.3	31.7
York (Glen)	1,715.0	3,544	2,937	1.7	82.9	82.2
Total	241,097.5	236,988	180,809	0.7	76.3	69.6

Input Measure: Total FTE Students (as defined in Appendix C).

Space Factor: 0.9 NASM

System Average: 0.7 NASM per FTE Student
(Total Actual Physical Education/Athletics space divided by Total FTE students).

Table 35

Maintenance Space: Generated Space and Inventory, 1995-96

	NASM Inventory	Generated Space	Inventory NASM	% I/G	1992-93 % I/G
Brock	78,997.7	1,185	820	69.2	121.3
Carleton	157,116.9	2,357	1,820	77.2	81.2
Guelph	292,510.8	4,388	4,927	112.3	118.1
Lakehead	86,769.8	1,302	1,374	105.5	125.4
Laurentian	83,347.5	1,250	2,440	195.1	149.2
Laurentian (Algo)	10,871.2	163	136	83.1	95.2
Laurentian (Hear)	6,738.0	101	641	633.9	472.2
McMaster	266,727.4	4,001	4,716	117.9	97.5
Nipissing	15,544.0	233	not applicable		
OCA	12,737.1	191	197	102.9	103.5
OISE	24,937.0	374	926	247.6	281.2
Ottawa	217,436.9	3,262	984	30.2	30.3
Queen's	281,506.0	4,223	3,221	76.3	85.2
Ryerson	146,110.9	2,192	2,024	92.3	128.7
Toronto (St. Grge)	568,771.3	8,532	6,435	75.4	82.9
Toronto (Erin)	58,155.1	872	679	77.8	77.9
Toronto (Scar)	42,983.3	645	902	139.9	174.6
Trent	85,592.0	1,284	1,083	84.4	120.2
Waterloo	293,004.7	4,395	5,570	126.7	129.3
Western	341,767.0	5,127	5,696	111.1	113.1
Wilfrid Laurier	80,172.0	1,203	1,298	107.9	96.0
Windsor	138,615.5	2,079	1,885	90.7	92.1
York (Main)	268,641.8	4,030	2,671	66.3	55.8
York (Glen)	23,844.4	358	452	126.3	150.8
Total	3,582,898.3	53,743	50,893	94.7	98.7

Input Measure: Total NASM Inventory (excluding 16.0 Non-Assignable).

Space Factor: 0.015 NASM

System Average: 0.014 NASM
(Total Actual Maintenance space divided by Total NASM Inventory.)

Table 36

Student and Central Services Space: Generated Space and Inventory, 1995-96

	FTE Students	Generated Space	Inventory NASM	Inventory / FTE Students	% I/G	1992-93 % I/G
Brock	7,870.6	15,741	9,280	1.2	59.0	57.2
Carleton	15,210.5	30,421	18,364	1.2	60.4	55.3
Guelph	11,743.0	23,486	20,304	1.7	86.4	78.2
Lakehead	6,178.5	12,357	9,438	1.5	76.4	84.2
Laurentian	5,988.9	11,978	10,897	1.8	91.0	91.9
Laurentian (Algo)	651.2	1,302	1,165	1.8	89.5	84.4
Laurentian (Hear)	324.0	648	841	2.6	129.8	345.2
McMaster	14,549.3	29,099	23,886	1.6	82.1	81.4
Nipissing	1,868.8	3,738	1,831	1.0	49.0	41.8
OCA	1,756	3,511	1,080	0.6	30.8	44.8
OISE	1,300.7	2,601	3,573	2.7	137.3	139.3
Ottawa	18,324.1	36,648	19,958	1.1	54.5	53.9
Queen's	14,149.4	28,299	26,631	1.9	94.1	89.1
Ryerson	13,701.4	27,403	18,282	1.3	66.7	70.0
Toronto (St. Grge)	31,177.3	62,355	52,432	1.7	84.1	85.7
Toronto (Erin)	4,326.8	8,654	7,440	1.7	86.0	81.0
Toronto (Scar)	3,864.9	7,730	5,217	1.3	67.5	60.2
Trent	4,462.0	8,924	7,797	1.7	87.4	84.7
Waterloo	14,877.0	29,754	33,517	2.3	112.6	92.8
Western	23,128.5	46,257	34,775	1.5	75.2	68.5
Wilfrid Laurier	6,080.0	12,160	12,250	2.0	100.7	78.8
Windsor	11,115.8	22,232	17,727	1.6	79.7	43.7
York (Main)	26,734.0	53,468	28,659	1.1	53.6	51.0
York (Glen)	1,715.0	3,430	3,673	2.1	107.1	99.3
Total	241,097.5	482,195	369,017	1.5	76.5	71.5

Input Measure: Total FTE Students (as defined in Appendix C).

Space Factor: 2.0 NASM

System Average: 1.5 NASM per FTE Student

(A rounded total of recommended space factor ranges for the actual individual student central services categories divided by Total FTE Students.)

Table 37

Total Space: Generated Space and Inventory, 1995-96

	FTE Students	Generated Space	Generated per FTE	Inventory NASM	Inventory per FTE	% I/G	1992-93 I/G
Brock	7,870.6	77,426.9	9.8	51,713	6.6	66.8	66.2
Carleton	15,210.5	161,443.3	10.6	122,524	8.1	75.9	70.4
Guelph	11,743.0	189,025.8	16.1	189,597	16.1	100.3	90.9
Lakehead	6,178.5	68,747.5	11.1	53,395	8.6	77.7	79.2
Laurentian	5,988.9	63,352.5	10.6	59,984	10.0	94.7	96.3
Laurentian (Algo)	651.2	9,315.2	14.3	9,141	14.0	98.1	96.2
Laurentian (Hear)	324.0	5,533.6	17.1	4,696	14.5	84.9	113.1
McMaster	14,549.3	195,079.5	13.4	174,838	12.0	89.6	83.5
Nipissing	1,868.8	23,506.6	12.6	9,669	5.2	41.1	39.7
OCA	1,755.7	31,704.0	18.1	12,737	7.3	40.2	77.6
OISE	1,300.7	24,324.0	18.7	20,642	15.9	84.9	94.6
Ottawa	18,324.1	215,135.9	11.7	169,604	9.3	78.8	70.1
Queen's	14,149.4	193,130.5	13.6	189,515	13.4	98.1	93.7
Ryerson	13,701.4	132,339.0	9.7	104,254	7.6	78.8	75.4
Toronto (St. Grge)	31,177.3	457,576.4	14.7	448,865	14.4	98.1	100.8
Toronto (Erin)	4,326.8	40,518.4	9.4	39,092	9.0	96.5	95.1
Toronto (Scar)	3,864.9	37,204.2	9.6	31,698	8.2	85.2	85.3
Trent	4,462.0	44,439.3	10.0	39,816	8.9	89.1	88.6
Waterloo	14,877.0	194,033.1	13.0	194,994	13.1	100.5	90.0
Western	23,128.5	287,586.4	12.4	246,704	10.7	85.8	83.6
Wilfrid Laurier	6,080.0	62,079.3	10.2	54,914	9.0	88.5	66.1
Windsor	11,115.8	121,795.0	11.0	104,738	9.4	86.0	76.2
York (Main)	26,734.0	265,188.9	9.9	176,324	6.6	66.5	64.8
York (Glen)	1,715.0	18,063.1	10.5	16,302	9.5	90.3	90.2
Total	241,097.5	2,918,548.3	12.1	2,525,555.0	10.5	86.5	83.2

A comparison of the Total Generated Space and existing Inventory in categories 1 through 15 per FTE Student

SECTION 5

APPENDICES

Appendix A - Definitions of Space Categories

Appendix B - List of Input Measures

Appendix C - Definitions of Input Measures

Appendix D - Program Classification Scheme

Appendix E - Revised COU Space Standards

Appendix F - List of Publications by the COU Committee on Space Standards and Planning



DEFINITIONS OF SPACE CATEGORIES

Category 1: CLASSROOM FACILITIES

A room primarily used for scheduled teaching purposes which does not require special equipment of a kind that makes the room unsuitable for classroom instruction (i.e. laboratory benches), and rooms directly serving such facilities.

Subcategories

- 1.1 Tiered classrooms
- 1.2 Non-tiered classrooms
- 1.3 Classroom service space

Category 2: LABORATORY - UNDERGRADUATE

A room used for instruction of undergraduate students which requires special purpose equipment or is so arranged that use is restricted to a particular field of study; and rooms directly serving these facilities. Activities in these facilities would include student participation, experimentation, observation or practice in a field of study.

Subcategories

- 2.1 Scheduled class laboratory space
- 2.2 Unscheduled class laboratory space
- 2.3 Laboratory (instructional) support

Category 3: RESEARCH LABORATORY SPACE (Graduate & Faculty)

A room used for laboratory applications, research or training in research methodology which requires special-purpose equipment for staff or graduate student experimentation or observation, and preparation, service and other rooms directly serving these facilities.

Subcategories

- 3.1 Laboratory space
- 3.2 Laboratory (faculty and graduate) support space

Category 4: ACADEMIC DEPARTMENTAL OFFICES AND RELATED SPACE

A room usually assigned to one or more individuals on a permanent basis, containing office-type equipment and used by faculty, departmental administrative and support staff, and students, or a room directly serving these facilities.

Subcategories

- 4.1 Faculty offices
- 4.2 Other academic appointments offices
- 4.3 Graduate student offices
- 4.4 Departmental support staff offices
- 4.5 Office support space

Category 5: LIBRARY FACILITIES AND STUDY SPACE

A room or group of rooms used for the acquisition, processing, storage, circulation, study, or use of books, periodicals, manuscripts and other media of published information generally under the administration of the university library system and accessible to the university population at large and rooms directly serving these facilities.

Subcategories

- 5.1 Library Collection Space
- 5.2 Study Space
- 5.3 Library Support Areas

Category 6: ATHLETIC / RECREATION SPACE

All indoor areas used by students, staff, or the public for athletic activities, either for recreational or competitive purposes, and rooms directly serving these facilities.

Subcategories

- 6.1 Athletic activity areas
- 6.2 Athletic seating areas
- 6.3 Athletic service space

Category 7: FOOD SERVICE

A room or group of rooms used for preparing or eating food or which directly serve these facilities including central facilities located in residences and faculty clubs, whether operated by the university or an external company.

Subcategories

- 7.1 Food facilities
- 7.2 Food facilities service

Category 8: BOOKSTORE AND OTHER MERCHANDISING FACILITIES

A room or group of rooms used to sell products or services, exclusively or primarily for the university population, and rooms directly serving these facilities.

Subcategory

- 8.1 Bookstore/Merchandising

Category 9: PLANT MAINTENANCE

Space associated with the operation and maintenance of university buildings, grounds, vehicles and other elements of the physical plant.

Subcategory

- 9.1 Plant maintenance

Category 10: ADMINISTRATIVE OFFICE AND RELATED SPACE

A room usually assigned to one or more individuals on a permanent basis containing office-type equipment and used by administrative and support staff, or a room directly serving these facilities.

Subcategories

- 10.1 Office areas
- 10.2 Office support space

Category 11: AUDIO-VISUAL/TELEVISION FACILITIES

A room or group of rooms used in the production, distribution and storage of non-print instructional media, and rooms directly serving these facilities, providing campus-wide rather than exclusively departmental services.

Subcategory

- 11.1 AV/TV facilities

Category 12: CENTRAL SERVICES

A room or group of rooms used to provide campus-wide services for both academic and non-academic sections of the university, and rooms directly serving these facilities.

Subcategories

- 12.1 Computing facilities
- 12.2 Other central services
- 12.3 Student computer rooms

Category 13: HEALTH SERVICE FACILITIES

A room or group of rooms intended to supply health services primarily to the general university population, and rooms directly serving these physical and wellness services facilities.

Subcategory

- 13.1 Health service facilities

Category 14: COMMON USE & STUDENT ACTIVITY SPACE

A room or group of rooms accessible to the general university population intended for recreation, rest, or relaxation, or rooms directly serving these facilities.

Subcategories

- 14.1 Student offices and support space
- 14.2 Recreational facilities and service
- 14.3 Lounge and service space

Category 15: ASSEMBLY AND EXHIBITION FACILITIES

A room or group of rooms intended to serve the general university population and to be used for dramatic, musical, or devotional activities or for exhibition purposes, and rooms directly serving these facilities.

Subcategories

- 15.1 Assembly facilities
- 15.2 Exhibition facilities

Category 16: NON-ASSIGNABLE

A room or area that is not available for assignment to the occupants of a building but which is necessary for the general occupation or mechanical support of one or a number of buildings.

Subcategories

- 16.1 Central utility plant
- 16.2 Other non-assignable areas
- 16.3 Inactive unassignable

Category 17: RESIDENTIAL SPACE

A room or rooms used to accommodate one or more individuals and the ancillary areas in direct support of such rooms.

Subcategories

- 17.1 Residence living space
- 17.2 Residence service space

Category 18: ANIMAL SPACE

Animal facilities in overall support of teaching or research and not normally integrated with or under the control of academic departments.

Subcategories

- 18.1 Specialized central areas
- 18.2 Farm-type areas

Category 19: OTHER UNIVERSITY FACILITIES

Any room or area not included in categories 1 through 18.

Subcategories

- 19.1 Day care facilities
- 19.2 Rifle ranges and other space in support of military training
- 19.3 Merchandising facilities not exclusively or primarily serving the university population
- 19.4 Demonstration schools, and other instructional institutions for non-university students
- 19.5 Inactive assignable space
- 19.6 Non-institutional agencies occupying university space
- 19.7 Instructional service activities to the external community.

Category 20: HEALTH SCIENCE CLINICAL FACILITIES

Space owned or operated by the university that is used in direct support of instruction, research and service for clinical health science disciplines.

NOTE:

The above are abbreviated definitions of Input Measures. For a complete definition of these Input Measures, please refer to the COU Building Blocks - Users' Guide.

APPENDIX B

LIST OF INPUT MEASURES

<i>Space Category</i>	<i>Input Measure</i>
1 Classroom Facilities	FTE Students
2 Laboratory - Instructional	Scheduled Lab. Weekly Student Contact Hours
3 Laboratory - Graduate and Faculty	FTE Faculty Other Research Appointments FTE Graduate Students
4 Academic Departmental Offices	FTE Faculty FTE Graduate Students FTE Non-Academic Office Staff requiring offices
5 Library and Study Facilities	Library Collections (Equivalent Volumes) FTE Undergraduate Students FTE Graduate Students FTE Professional Students
6 Recreation / Athletic Space	FTE Students
7 Food Service	FTE Students
8 Bookstore & Other Merchandising Facilities	FTE Students
9 Plant Maintenance	Total Net Assignable Inventory (categories 1-15 and 17-20)
10 Administrative Offices	FTE Non-Academic Office Staff
11 Audio-Visual Television Facilities	FTE Students
12 Central Services	FTE Students
13 Health Service Facilities	FTE Students
14 Common Use & Student Activity Space	FTE Students
15 Assembly and Exhibition Facilities	FTE Students

DEFINITIONS OF INPUT MEASURES

Laboratory Weekly Student Contact Hour

The total weekly-student-contact-hours of laboratory instruction offered by a university as part of a programme of studies leading to a degree or diploma. The contact hours are computed as the product of the course enrolment and the hours of scheduled instruction received by each enrolled student during a typical academic week.

Laboratory weekly-student-contact-hours of laboratory instruction pertains to those contact hours of courses or portions of courses in which the instructional activity is facilitated by demonstration or experimentation requiring additional equipment not ordinarily available in classrooms.

A contact hour is the time that the instructor of the course (or lab assistant) is supervising a formal laboratory session in a specialized teaching facility.

FTE Faculty

The university's faculty count is to include all persons, up to and including department heads or chairmen, holding an academic appointment and involved in teaching, who receive remuneration via the university from all salary funding sources.

Other Research Appointments (FTE)

Generators of research who are not regular faculty as defined in FTE Faculty, but who have similar research space requirements. This category includes post-doctoral fellows at any salary, and other equivalent-to-faculty research appointments, only if the annualized salary paid via the university (irrespective of funding source) is equal to or higher than the floor of the assistant professor range at that institution.

Research appointments located under category 20 are excluded.

FTE Students

(1) FTE Undergraduate Students

The definitions for student enrolment currently contained in the MET Operating Formula Manual will govern the input measures as they pertain to students.

(2) FTE Graduate Students

See definition for FTE Undergraduate Students.

(3) Professional Students

Enrolments for professional programs are the count of students in post-baccalaureate programmes leading to a professional degree.

NOTE: Affiliated institutions (both Arts & Science and Theological) are included as of November 1, 1992.

FTE Non-Academic Office Staff

The full time equivalent of all filled established positions for *secretarial, clerical, professional and management staff* with appointments of at least three months' duration as of 1 October. This will include non-academic office staff in teaching and research units, central computing and data processing, physical planning and plant operations, student services, academic services and administration, not included in other categories.

Total Net Assignable Inventory

All net assignable space inventory for Categories 1-20, excluding Category 16.

Library Collections (Equivalent Volumes)

The library materials identified in the university library catalogue are to be included.

Equivalent volumes

An equivalent volume represents one bound volume. Other library materials, including media storage units, are converted into bound volumes.

The volume equivalencies and categories of library material were reviewed and updated in consultation with the Ontario Council of Universities Libraries (OCUL) in September, 1995. The categories are similar to that reported by OCUL.

APPENDIX D

PROGRAM CLASSIFICATION SCHEME

COU space standards make use of program or discipline groups in the generation of instructional labs and research space.

<u>CODE</u>	<u>PROGRAM/DISCIPLINE</u>	<u>CATEGORY 2</u> <u>GROUP W - Z</u>	<u>CATEGORY 3</u> <u>GROUP A - E</u>
1.00	EDUCATION		
1.18	Elementary/Secondary Teacher Training	Y	E
1.23	Higher Education, Post-Secondary Teacher Training	Y	E
1.36	Kindergarten, Pre-School Teacher Training	Y	E
1.38	Non-Teaching Fields	Y	E
1.39	Physical Education	Y	D
1.40	Kinesiology, Human Kinetics and Kinanthropology	Y	D
1.41	Recreation	Y	E
1.99	Other, not elsewhere specified	Y	E
2.00	FINE AND APPLIED ARTS		
2.03	Fine Art	X	E
	Visual Arts		C
	Fine Arts, Art Conservation		D
2.05	Music	X	E
2.08	Other Performing Arts	X	E
2.14	Applied Arts (eg. Industrial Design, Design)	X	E
2.99	Other, not elsewhere specified	X	E
3.00	HUMANITIES AND RELATED		
3.03	Classics, Classical and Dead Languages	Z	E
3.05	English Language and/or Literature	Z	E
3.06	French Language and/or Literature	Z	E
3.09	History	Z	E
3.10	Journalism	Z	E
3.11	Languages and/or Literatures, Other	Z	E
3.12	Library Science	Z	D
3.13	Other Records Science	Z	D
3.14	Linguistics	Z	E
3.17	Other Mass Communication Studies	Z	E
3.21	Philosophy	Z	E
3.24	Religious Studies	Z	E
3.25	Theological Studies	Z	E
3.27	Translation and Interpretation	Z	E
3.99	Other, not elsewhere specified	Z	E

** Changes to category groupings in bold.

<u>CODE</u>	<u>PROGRAM/DISCIPLINE</u>	<u>CATEGORY 2</u> <u>GROUP W - Z</u>	<u>CATEGORY 3</u> <u>GROUP A - E</u>
4.00	SOCIAL SCIENCES AND RELATED		
4.03	Anthropology	Y	D
4.06	Archaeology	Y	D
4.08	Canadian Studies	Z	E
4.09	Area Studies, Other	Z	E
4.12	Commerce, Management, Business Administration	Z	E
4.13	Criminology	Z	E
4.14	Specialized Administration Studies	Z	E
4.15	Demography	Y	D
4.27	Economics	Z	E
4.30	Geography	Y	D
	Physical Geography	Y	C
	Human Geography	Y	D
4.33	Law and Jurisprudence	Z	E
4.40	Man/Environment Studies	Y	D
	Urban & Regional Planning, Environ. Studies	Y	E
4.43	Political Science	Z	E
4.46	Psychology	Y	C
4.47	Secretarial Studies	Z	E
4.49	Social Work and Social Welfare	Z	E
4.52	Sociology	Z	E
4.55	Military Studies	Z	E
4.57	Other Social Services	Z	E
4.99	Other, not elsewhere specified	Z	E
5.00	AGRICULTURAL AND BIOLOGICAL SCIENCES		
5.03	Agriculture (Animal, Plant, Soil Science)	W	A
5.06	Biochemistry	X	A
5.09	Biology	X	A
5.12	Biophysics	X	A
5.15	Botany	X	A
5.16	Fisheries and Wildlife Management	X	A
5.18	Household Science and Related	Y	D
5.21	Veterinary Medicine	W	A
5.22	Veterinary Sciences	W	A
5.23	Veterinary Medicine Specialties	W	A
5.24	Zoology	X	A
5.99	Other, not elsewhere specified	X	A

** Changes to category groupings in bold.

<u>CODE</u>	<u>PROGRAM/DISCIPLINE</u>	<u>CATEGORY 2 GROUP W - Z</u>	<u>CATEGORY 3 GROUP A - E</u>
6.00	ENGINEERING AND APPLIED SCIENCES		
6.03	Architecture	X	E
6.05	Aeronautical and Aerospace Engineering	W	B
6.06	Chemical Engineering	W	B
6.07	Civil Engineering	W	B
6.08	Design, Systems Engineering	W	B
6.09	Electrical Engineering	X	C
6.10	Industrial Engineering	W	B
6.11	Mining Engineering	W	C
6.12	Mechanical Engineering	W	B
6.13	Metallurgical Engineering	W	B
6.14	Other Engineering	W	B
6.15	Engineering Science	X	B
6.16	Engineering General	W	B
6.20	Forestry	X	B
6.22	Landscape Architecture	X	E
6.99	Other, not elsewhere specified	W	B
7.00	HEALTH PROFESSIONS AND OCCUPATIONS		
7.03	Dentistry (Professional)	X	A
7.04	Dental Specialties	X	A
7.05	Medicine (Professional)	X	A
7.06	Basic Medical Sciences	X	A
7.08	Medical Specialties	X	A
7.10	Paraclinical Sciences (Microbiology, Immunology, Pathology)*		
7.12	Surgical Specialties	X	A
7.15	Nursing	Z	E
7.18	Optometry	X	A
7.21	Pharmacy	X	B
7.24	Epidemiology and Public Health	X	D
7.27	Rehabilitation Medicine	X	C
	Audio-Speech Therapy, Commun Disorders	X	B
	Occ., Rehab, Physical Therapy, App Health Sci.	X	D
7.36	Medical Technology	X	B
7.99	Other, not elsewhere specified	X	A
8.00	MATHEMATICS AND PHYSICAL SCIENCES		
8.06	Computer Science	Z	D
8.12	Mathematics	Z	E
8.15	Chemistry	X	A
8.18	Geology and Related	X	A
8.21	Metallurgy, Materials Science	W	B
8.24	Meteorology	X	A
8.27	Oceanography and Water Studies	X	A
8.30	Physics (eg. Astronomy, Aerospace Sciences)	X	A
8.99	Other, not elsewhere specified	X	A

* Do not report corresponding inventory. See category 20.

** Changes to category groupings in bold.

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APPENDIX E

COU SPACE STANDARDS

<i>Space Category</i>	<i>Space Factor</i>	<i>Input Measure</i>
1 CLASSROOM FACILITIES	1.2 NASM	FTE Students
2 LABORATORY - UNDERGRADUATE	Group W 0.8 NASM Group X 0.6 NASM Group Y 0.5 NASM Group Z 0.3 NASM	Weekly Student Laboratory Contact Hours
3 RESEARCH LABORATORY	Group A 45 NASM Group B 30 NASM Group C 20 NASM Group D 10 NASM Group E 1 NASM	FTE Faculty + 0.5 Other Research Appointments + 0.5 Graduates
4 ACADEMIC DEPARTMENTAL OFFICES	13 NASM <i>(plus an additional allowance of 15% for academics not included in the faculty count)</i> 4 NASM	FTE Faculty FTE Graduate Students
10 ADMINISTRATIVE OFFICES	13 NASM	FTE Non-Academic Staff requiring offices
Office Services	<i>0.3 x Total Generated for Faculty, Graduate Students and Non-Academic Staff</i>	
5 LIBRARY FACILITIES		
Stack (Compact Storage)	0.004 NASM	Equivalent volumes (EV) for 10% of total collection
Stack (remainder)	0.007 NASM 0.006 NASM 0.005 NASM	EV for 0-300,000 volumes. EV for next 300,000 volumes EV for rest of collection

<i>Space Category</i>	<i>Space Factor</i>	<i>Input Measure</i>
5 LIBRARY FACILITIES (cont'd)		
Study	0.5 NASM 1.0 NASM 0.7 NASM	FTE Undergraduate FTE Prof Undergrad FTE Grad. Student
Service	0.25 x (Stack and Study)	
6 RECREATION/ATHLETIC SPACE	0.9 NASM plus - 2,000 NASM for institutions with less than 4,000 FTE 1,000 NASM for institutions with 4,000 to 8,000 FTE	FTE Student
9 PLANT MAINTENANCE	0.015 x Total NASM Inventory	
STUDENT AND CENTRAL SERVICES -	2 NASM	FTE Student
7 Food Service	0.5 to 0.7 NASM	FTE Student
8 Bookstore & Other Merch. Facilities	0.1 to 2.0 NASM	FTE Student
11 Audio-Visual/TV Facilities	0.05 to 0.35 NASM	FTE Student
12 Central Services	2 NASM	FTE Student
13 Health Service Facilities	0.03 to 0.05 NASM	FTE Student
14 Common Use and Student Activity Space	0.5 to 0.7 NASM	FTE Student
15 Assembly and Exhibition	0.1 to 0.4 NASM	FTE Student

APPENDIX F

LIST OF PUBLICATIONS BY THE COU COMMITTEE ON SPACE STANDARDS AND PLANNING

<i>Publication</i>	<i>Pub. #</i>
1972 Building Blocks: Background Studies on the Development of a Capital Formula for Ontario. Volume 1: Report of the Task Force - Space and Utilization	72-9
1972 Building Blocks: Volume III: Report of the Task Force - Space for Health Sciences	72-10
1972 Building Blocks: Volume II: Report of the Task Force - Space for Education	72-11
1972 Building Blocks: Volume IV: Report of the Task Force - Building Costs	72-12
1972 Building Blocks: Supplement to Volume IV: Elemental Cost Analysis and Performance and Statistical Data - tables	72-12S
1974 Building Blocks: Volume V: Report of the Task Force - Building Life Costs	74-1
1978 Building Blocks: Volume VI: Report of the Subcommittee - Revisions to Building Blocks	78-12
1981 Inventory of Physical Facilities of Ontario Universities 1980-81	81-7
1984 Inventory of Physical Facilities of Ontario Universities 1983-84	84-5
1988 Building Blocks: Volume VII: The Final Report of the Task Force to Review COU Space Standards	88-1
1990 Classroom Space Utilization in Ontario Universities, 1988-89	
1990 University Space Standards in North America	
1991 Inventory of Physical Facilities of Ontario Universities 1989-90	91-1
1993 Inventory of Physical Facilities of Ontario Universities 1992-93	93-5
1995 COU Building Blocks- Users' Guide (Update for 1995-96 Report)	